

# AMERICAN AGRICULTURIST,

FOR THE

## Farm, Garden, and Household.

"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL, AND MOST NOBLE EMPLOYMENT OF MAN."—WASHINGTON.

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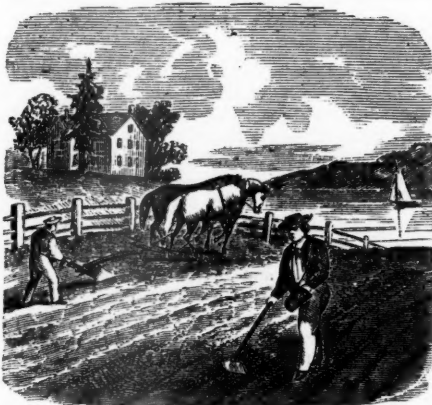
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### Suggestions and Notes for the Month.

'The meanest herb we trample in the field,  
Or in the garden nurture, when its leaf  
In Autumn dies, forebodes another Spring,  
And from short slumber wakes to life again.  
Man wakes no more! Man, peerless, valiant, wise,  
Once chilled by death, sleeps hopeless in the dust.'  
Says the desponding lay, 'Man wakes no more?'  
O blind! who read'st not in the teeming soil,  
The freshening meadow, and the bursting wood,  
A nobler lesson! \* \* He whose providence the change  
Of day and night, and seasons crowned with food,  
And health and peace proclaimed; bade Nature's hand  
Point to the scenes of dim futurity.  
He on a world, in Gentle darkness lost,  
Pitying looked down: He to bewildered man  
Bade Spring, with annual admonition, hold  
Her emblematic taper. ....—Gisborne's Forest Walks.

How often does a "doubting Thomas," in these days, desire to strengthen his faith by witnessing a miracle with his own eyes. But he has only to open his eyes to see a world of miracles. The tree, lately so dormant, with its naked trunk and apparently lifeless branches, is now developing its beautiful foliage, made up of myriads of leaves, each one a new creation—a miraculous product of the limpid blood that rises from the dank soil and courses the capillary veins of the trunk. We can tell whence grow the leaves, and describe their various forms in classifying terms, but *how* does the leaf grow? Can anything short of an ever-present guiding hand marshal the elements into their proper rank and file, and allot to each one its place as a constituent of the leaf, so that each tree shall bear leaves after its kind? The tiny seed, by accident or design, is buried in the soil—a mass of sandy clay; *how* is it, that surrounded with materials so forbidding, it feeds and grows, and produces a plant so exactly like the parent one? The manner of the growth is illustrated on another page (152), but of the why and how, who can tell? How and why is it that from

similar seeds, plants so diverse in form are produced? Take the cabbage and turnip seed for example. These are almost exactly alike, yet one yields the great leaves and the central head above the surface, while the other, planted by its side and feeding upon the same materials, develops its most valuable portion below. The seeds are so much alike in form, in structure, in the enclosed germ, and in the development of the radicles and leaves, that even the experienced eye can discern no difference. Why does the after growth, from the same soil elements, differ so widely? Illustrations innumerable are ever to be observed, by the dwellers among rural scenes. Is there not enough in the diverse forms and growth of vegetable life, to constantly fill with pleasure the mind of every tiller of the soil, as he labors amid ten thousand operations of nature, that are miracles in themselves. And witnessing so constantly the actual works of an omnipotent superintending skill, should not he live carefully, standing as he does in the very presence of the Creator?—These are wayside thoughts not to be forgotten as we go forth to the labors of the field. Let us turn to the consideration of some of the practical details that must occupy the hands as well as the mind. The present season is an extraordinary one. We write in the middle of April at a time when plowing and sowing are usually in active operation. But an instalment of Winter due in February, is being paid at this late date. Much of the work of April will be crowded into May. The cold weather is likely to restrain the development of the fruit buds so much, that with fair skies and the absence of untimely frosts in May, we shall have another bountiful fruit crop. But for putting in field and garden crops the time will, at best, be so short that every possible effort should be made by good planning, by procuring help and the best implements, and by having the seed all ready, to hasten work. The absence of a great number of cultivators in the army, the wastes of war, and the abundance of currency, bid fair to create an active market, and high prices for all the farm produce that can be secured this year. Let every acre possible be put to service in the production of food or clothing materials for man, and food for beast.

### Work for the Farm, Household, etc.

There is little need to indicate how time may be employed on the farm the present month. The fields invite the plow, and signs of hope are written in bud and blossom over all the plains and valleys. Renewed life makes the air vocal with song, stirs the quickened bosom of the earth, and inspires man to cheerful activity. The cultivator, above all others, should exult in his labors. The elements are his willing servants; the earth is his laboratory—the air, the clouds, and the sun, his assistant chemists. He has but to direct their labors to supply his

wants and gratify his desires. But he must accord to natural laws if he would reap benefit from them; ignorance or unskilfulness have no immunity from the penalties of their violation or neglect. Herein in great measure lies the secret of success or want of it. The observant and thoughtful learn to work *with* Nature; the uninformed and heedless often strive *against* her, and always with discomfiture.

It is then wise to seek information from all promising sources, and it is our endeavor to collect it from every possible field, and to impart it for the general benefit. The suggestions which follow are intended to indicate subjects for attention, and also in some degree to give practical details drawn from reliable sources.

**Barometer.**—A good instrument will give indications enabling the cultivator to lay out work with some regard to the coming weather—often an important consideration, when preparing to sow, plant, or harvest. Its cost has often been saved by this means in a single week.

**Beans** are in great demand at a high price for army use, and paying returns may be expected from a good crop the present season. They make but slight draft upon the soil, and are therefore well adapted for lands not fertile enough for corn. Heavy manuring increases the yield of vine without materially adding to the crop. Land in good but not very high condition is most favorable. They may be planted in orchards where tillage is needed. The white bush variety is a favorite. Plant in 2½ feet drills, 5 to 10 inches apart, according to variety.

**Beef and Pork** in the cellar should be examined occasionally as warm weather approaches. If needed, add salt, or make new brine and repack. The old brine is valuable to dress asparagus beds, or in the manure heap.

**Bees**, if properly managed, pay better on the capital invested than any stock on the farm. See directions for the month under "Apiary."

**Birds.**—Encourage their visits, and allow no loafing gunners to harm them. They are the most efficient checks to the increase of insects.

**Books** are most interesting and best remembered when immediately applicable to some work in hand. The library should be consulted day by day with reference to the various operations in progress, to gain new ideas and suggestions to improvement. For a good selection of works see our book list, on page 159.

**Boys** are usually ambitious to do men's work. Encourage them judiciously. Skill in all hand labor is best attained in youth. Do not, however, allow them to be overtaken. It is poor economy to save paying for hired help at the expense of the health of a child, or inducing in him an aversion to home by too severe tasking. Assign to each boy a plot of ground to be worked, and the profits enjoyed by himself.

Remember the wants of the boys now, and they will not forget yours in after years.

**Broom Corn.**—Prepare the ground by heavy manuring and thorough pulverization. Plant at the same time as for Indian corn, in drills four feet apart, or three feet for the dwarfish varieties. Thin to about eight inches in the row, at the first hoeing, and weed thoroughly.

**Buildings.**—Keep in good repair and well painted. A cheap paint for rough work is made of water-lime (hydraulic cement) mixed with skimmed milk, and colored with ochre, umber, or other materials to suit the fancy.

**Cabbages** are a profitable field crop in the vicinity of ready markets, and also valuable for an occasional change of diet for stock in Winter. New land is best for these plants, which need deep soil and abundant manuring. We have had excellent results on sandy soil with a liberal dressing of muck and ashes. For very early, the plants should be started in a hot-bed: for medium early, sow in the open ground as soon as it is fit to work, and for the late or main crop from the first to the middle of June. As soon as the plants are well up, apply a dressing of ashes and plaster, or air-slaked lime, to prevent the attacks of the fly. The plants may be set out as soon as they are about three inches high. The smaller kinds may be 2 feet, and the larger sorts 3 or 4 feet apart, each way. In taking up the plants for transplanting, separate them all and dip the roots in a thin mud made of soil and water mixed to the consistence of cream; this will prevent the delicate fibers from drying. It is better to set out just before a rain, but if the plants are ready and no prospect of rain, make holes with a trowel, put a pint or more of water in each, and after it has soaked away put out the plant, pressing the earth well around the roots. The varieties are numerous, and new ones are originated every year. Early York, Sugar-Loaf and Ox-Heart are good early sorts. Winningstadt is good medium—in fact good at any time. If we were confined to one sort it would be the Winningstadt. Marblehead Mammoth, Stone Mason, Late Drumhead, and Bergen, are all good Winter sorts. The Red Dutch is prized for pickles, though it is apt to be small, and slow in heading. The Savoy is, though small, fine for Winter. They are almost as rich as a Cauliflower, perfectly hardy, and good keepers.

**Calves.**—Read directions in April Calendar. Castrate at four weeks old. Feed with sweet, fine hay when they are turned out to graze. A few oats occasionally will not hurt them.

**Carrots.**—Sow as early as possible, if not already done. See directions in April Calendar.

**Cattle.**—Feed with hay and roots until grass is abundant. Rye-bran mash is valuable for milch cows. Give a daily allowance of grain to working oxen, and card and brush them when returned from the labors of the field. Accustom them to obey the voice without constant use of the whip. Prevent young cattle from becoming unruly by keeping the fences good. Never allow cattle to jump over one or two bars in passing to or from the pasture, or they will soon learn to jump the whole fence.

**Cellars.**—Keep clean and well ventilated, especially if milk be kept there. A cement floor will be a great improvement. Whitewash walls.

**Chimneys.**—Where wood is burned, chimneys should be occasionally burned out, or otherwise cleansed to prevent danger of taking fire in windy weather. Choose a wet, still day and fire them below with a bundle of straw.

**Clothing.**—Study appropriateness and economy. A loose-fitting blouse or overshirt is preferable to a coat and vest, for most out-door

work. It is cheaper, allows more freedom of motion, and better preserves the under-clothing from being soiled.

**Clover** may still be sown; some prefer to delay it until May. Read article on page 142.

**Corn.**—Nothing is gained by too early planting. The soil should be dry and warm, and the weather settled before putting in the crop. Much after-culture will be saved by thorough tillage at the first. It is well to allow grass and weeds a slight start, and then destroy them by a good harrowing before marking out and planting. Either of the corn-markers described in previous numbers, this year, will save much labor on smooth land. Read article on page 140.

**Cotton** was profitably raised, last year, as high as latitude 39°, owing to the extraordinary price: usually other crops would pay better. Prepare a warm soil as for corn, and plant early in rows 3½ feet apart, and 16 inches distant in the row.

**Cranberries** may still be planted. The best location is on swampy land, near the sea-shore, where muck and sand abound. Practical directions for managing this crop were given in the *Agriculturist*, Vol. XIX, pages 115, 142, (April and May, 1860.)

**Dairy.**—The first essentials are good cows and rich feed. The labors of this department will be greatly lightened by a conveniently-arranged milk-room. It should be cool, well ventilated, free from dust and offensive odors, and if possible, convenient to water. A well-stored ice-house is a valuable accessory, for securing proper temperature for cream and butter. Cleanliness in every department should be the first and constant rule. Have tubs and pails for marketing neatly painted and plainly marked. Cheese-making can be profitably conducted on a large scale by a union factory to be supplied with milk from surrounding farms, the producers to share the returns.

**Debts.**—Avoid contracting large debts while present high prices are maintained. Improve the present favorable opportunity for reducing the amount owed. Better pay off mortgages than buy new carriages or more showy furniture. To buy for cash and sell to safe buyers on time and on interest, is the surest method of accumulating.

**Draining.**—Observe where the soil remains longest unfit for cultivating on account of water, and prepare for draining when circumstances will admit. Examine outlets of underground drains, and keep them in working order. Keep sluiceways from the road open to convey their rich deposits to the fields.

**Experiments.**—The cultivator's own interest and that of the whole farming community will be promoted by carefully conducted experiments in the various departments of husbandry. If, for example, one thousand parties in different sections should this year endeavor to ascertain the relative merits of planting potatoes in hills or in rows, and report their success, the question might be almost infallibly settled. So of different modes of treatment of other crops, various manures, etc. Such trials need not be upon a large scale in any individual case. Experiment upon some point connected with agriculture, carefully note all the circumstances, and communicate for the benefit of the community. A strip of land through every crop left unmanured, and another doubly manured, for comparison, will often afford much information. So of other experiments in preparing seed by some special process, etc.

**Fences.**—Are all in order, particularly on boundary-lines? Putting up a rail may save a lawsuit.

**Flax** should be sown as early this month as the weather will admit. The "Notes on Flax-Culture" in previous numbers, this year, give full practical directions. There is a fair prospect that well-cultivated crops of this staple will be remunerative.

**Gates** properly made and hung, are cheaper than bars, where entrances are in frequent use. See plan of a cheaply made one on page 141.

**Grass-Seed** may still be sown on grain-fields and

on bare spots in meadows. Rolling, and top-dressing with fine manure, will help to ensure its growth.

**Health** is more frequently lost by neglect and overwork than by contagious diseases. Have the meals regular and of various diet. Severe exertion after a full meal is injurious. Take plenty of time for sleep. Be punctual in all natural habits. Avoid cool drafts when heated. Have help enough to avoid overwork. Keeping a good temper and a good conscience, tends to promote health and vigor.

**Hired Help.**—Remember that they are men, while requiring them to be faithful. A good table, liberal noonings, and judicious commendation for work well done, will be well repaid by their increased cheerfulness and activity.

**Home** should be the most attractive spot on earth. Surround it with pleasant objects. Cultivate a kindly temper in the household, and allow all reasonable privileges to the younger members of the family. Mingle commendation with discipline.

**Horses** should be kept stabled during the working season. Feed with grain according to amount of labor performed. If lameness or other ailment occur, give rest, and proper attention. A little neglect may result in permanent unsoundness.

**Lime.**—A top-dressing of 20 to 50 bushels per acre, after plowing, will usually be advantageous on wet, heavy soils. Read again the chapter last month, page 107. Keep a constant supply on hand for composting with muck for the manure-heap.

**Manures** are best applied on corn land, or in top-dressing meadows. Their value is greatly increased by finely dividing and thoroughly mixing them with the soil. Leave none in the barn-yard, pig-sty, poultry-house, privy, nor in any place where it cannot be made useful. A handful of ashes or dissolved bones mixed with earth and slightly covered in the hill, before planting, will give the young corn a vigorous start. It should never be in immediate contact with the seed.

**Markets.**—Part of the advantages enjoyed by those living near cities may be secured by the institution of Market Fairs to be held monthly or oftener as may be desirable. Read article on this subject on page 106, (April *Agriculturist*.)

**Meadows.**—Allow no stock to graze or trample them. While waiting for plowing grounds to dry, time may be profitably employed in taking out weeds, bushes, etc., from mowing lands. A dressing of lime will aid in eradicating moss and five-finger, and give grass a vigorous start. Harrow and reseed bare spots, top-dressing with fine manure.

**Millet.**—If a scarcity of pasture be apprehended, sow an acre or two of millet late in the month, to be cut and fed to cattle during the Summer. The variety known as Hungarian Grass is good. The Mammoth Millet gives a larger yield.

**Oats** are best sown in April. For seeding down to grass they may be put in early this month, and be cut and cured as hay, if not likely to mature.

**Onions.**—Read article on page 142 of this number.

**Pastures.**—Where straw is plenty it may be turned to good account in mulching thin spots in pasture-grounds. Sheep properly managed are the best fertilizers of pastures. Attract them to unproductive knolls by scattering salt. They will leave a valuable deposit. Never allow the grass to be gnawed down more than one inch below the surface!

**Parsnips** are valuable food for milch cows in Winter. Sow on rich, deeply-worked ground, in drills half an inch deep, and 2½ feet apart.

**Peas.**—A low-growing variety, as the Early Washington, sown with oats early this month, will make valuable feed for hogs and sheep.

**Plowing** sward for corn should be performed by a skillful hand. The furrow should be laid smoothly. A dressing of lime before plowing will hasten the decay of vegetable matter, and thus give ample nourishment to the early growth.

**Potatoes** should be put in as early as practicable. The yield will usually be better from rows than from hills. Read notes on selection for seed on page 147.



**Poultry** will now begin to get their own living if permitted to go at large. Continue to feed them liberally, but allow them to range if practicable. A few hens confined in coops in the garden or fruit-yard, with their chickens suffered to go in and out at pleasure, will aid in destroying insects. Where poultry must be confined, give them plenty of chopped meat, grass, and other green food. Collect eggs daily, and introduce new breeds, if desired, by exchange, or purchase of eggs.

**Pumpkins.**—A few seeds planted here and there in the corn-field, or elsewhere, will, in a favorable season, yield a large amount of food for stock, without much injury to the corn.

**Roads.**—Keep free from loose stones and other obstructions, and in general good repair. Open ditches to convey the wash to adjoining fields.

**Root Crops.**—Parsnips, carrots, mangel-wurzel, and sugar-beets, are of value to afford change of diet for stock in winter. Manure ground thoroughly, till deep, and sow in drills about two feet apart. Read article on growing carrots, p. 142.

**Sheep.**—See Care of Sheep and Lambs, page 137.

**Sorghum** can be grown with profit in other localities as well as at the West, where it was a highly remunerative crop last year. It would be a good arrangement for several cultivators to unite and secure the erection of a mill to work up all the cane grown in the vicinity. Good seed is difficult to be procured. Sorghum is preferred to Imphee for Northern latitudes; the latter succeeds best at the South. Plant from May 20th to 25th, thickly in drills  $3\frac{1}{2}$  feet apart, to be thinned out to 6 or 8 inches. The seed starts very slowly, and germination may be hastened by soaking. Pour boiling water upon it until it swells, stirring it to heat all equally. Allow it to remain one and a half minutes, then cool to lukewarmness by adding cold water. Plant the same day the seed is prepared. Put in the seed the same as for corn, which it resembles in its general requisites and manner of growth.

**Swine.**—Keep them in good condition by liberal feeding with bran, shorts, or meal mixed with sour milk, or water, and allowed to ferment. Prevent them from rooting by a ring in the nose, and give them the freedom of a pasture, but do not allow them the privilege of the highway.

**Tobacco.**—Read Prize Essay page 108 last month. The pamphlet published at this office is the best work on the subject ever issued. See advertisement.

**Water.**—Provide plenty for all stock, where they can have free access to it.

**Weeds.**—Take them in hand in time. Close feeding with sheep will finally eradicate daisies.

### Orchard and Nursery.

The unusual backwardness of the first half of the Spring will crowd some of the work over into the beginning of May. Planting should have been finished in April, but if the trees have been properly kept back it may still be done. Trees on which the buds have swollen should be handled with great care. It sometimes happens that those sent from a distance, in very warm weather, will start while in the package, and push out shoots several inches long. Such should be cut back very severely, to induce the dormant buds on the lower part of the limbs to start. One of the English horticultural journals publishes detailed directions for killing a tree; beginning with the advice to let it lay out so as to well expose the roots to the sun and air, and then put it out without trimming off broken roots or cutting back the top. Many who plant trees with a view to make them live seem to follow very much the same plan.

**Budded Stocks.**—Where the buds appear to be alive, the stock worked last year may be cut back. The cut should be made a few inches above the bud, which will leave a support to which the new growth may be tied. It can be cut away afterward.

**Evergreens.**—This is the great month for planting these favorite trees. Nursery stock is vastly to be

preferred to trees from the woods and swamps. Be careful of the roots; if once dried the tree will not live. Have the holes well prepared beforehand, and if the soil is sandy, add peaty earth or muck. It is difficult sometimes to stake an evergreen; a few large stones laid over the roots will serve to hold it. The term evergreen is so generally confined to the Pine family that many forget that there are several desirable kinds not of this family. Among these are the Holly, Laurel, Rhododendron, etc. These are worthy of a place in every collection. The Pine family is so large that there is a range for selection. The Norway Spruce and Arbor Vitæ, from their easy culture and rapid growth, will always be popular; nothing is better for screens. Our common White Pine is a most desirable tree. The Dwarf Pine is fine for the lawn, as it retains its deep green throughout the year.

**Grafting.**—There is no mystery about grafting. If farmers only knew how simple an operation it is, they would not continue their orchard of natural fruit until they can afford to employ a professional grafter. Try it on one tree, and your success will probably give you confidence to operate more extensively another year. All that is needed is some cions, a strong knife, a pocket knife, a mallet or hammer, a wedge of hard wood, and some grafting clay. Full directions are given on page 82 of March *Agriculturist*, 1860. If the cions were cut early, and have been well kept, grafting may be done until the trees are in blossom.

**Insects.**—The eggs which have escaped destruction will soon produce broods of caterpillars. As soon as their nests appear, destroy them with a brush made for the purpose, or wipe them out by means of a cloth wound around the end of a pole, and saturated with kerosene oil. If slugs appear on pear and cherry trees, syringe with solution of whale-oil soap, or dust the trees with lime or ashes. Look out for borers.

**Layering.**—Last year's shoots of grapes, quinces, and many ornamental shrubs, may be laid down and covered with 3 or 4 inches of earth. They will root more readily if a sloping cut be made about half through the branch, where it is to take root.

**Mulch** all newly-planted trees with straw, refuse hay, leaves, chips, or other covering.

**Orchards.**—But little work will be required here if pruning, manuring, and other operations were attended to at the proper season. Do not crop any but a young orchard, and that only with plants the raising of which will leave the soil in better condition than before.

**Pears.**—These may still be set out, cutting the head well back. Allow no fruit the first season.

**Quinces.**—Plant out in good soil, and give the trees as much care as any other fruit trees.

**Seed-beds.**—Peach and other pits, and apple, pear, and other seeds to produce stocks for grafting, if not out already, should be sown at once.

**Stocks and Cuttings.**—Apple and pear stocks, grape, currant, and other cuttings that have been kept in the cellar, are to be planted at once.

**Weeds.**—Hoe out the nursery rows as soon as weeds appear, and keep all clean and in neat order.

### Kitchen Garden.

At the present writing the season promises to be a late one; frosts and snows still linger—they will depart suddenly, and then the work will come with a rush. It is in late seasons that the advantage of well matured plans will be most appreciated. The work being laid out, everything will follow in proper succession. If late frosts occur, tender plants will need protection. A board turned over rows of early peas and beans as noticed on page 115, April *Agriculturist*, will be found serviceable. It will be found advantageous to prepare frames of boards about a foot square and 8 inches high, and cover the top with cheap muslin. These serve to protect hills of cucumbers, melons, etc., both from early frosts and from insects. In sowing, avoid covering the seeds too deeply. If long cold rains

come on, it will be necessary to re-sow as soon as the weather becomes favorable. In small gardens space should be economized in every possible way. See note on page 146. A succession of crops can be taken from the same soil, but in this case the ground should be kept well manured. Cabbages and Kale may be put between rows of early potatoes. Cucumbers may be grown between Lima beans. Cress, lettuce, and radishes, may be sown in every vacant spot, and carrots and beets occupy the space between rows of beans and peas.

**Artichokes.**—See directions for culture on p. 145.

**Ashes.**—A good supply of ashes should be saved for the garden. Mixed with an equal bulk of plaster, it forms the ash compost which is of great use, not only as a fertilizer, but to dust over young plants to repel insects.

**Asparagus.**—In most places the beds will be producing their tender shoots. Cut as soon as large enough for the table and remove all over-grown and unfit shoots. In cutting be careful not to injure the forming buds. Asparagus knives are used in England for the purpose of cutting. We have used a kind of chisel fixed to a handle like a cane. Always cut from the root and as near to it as possible. If there is a surplus to be sent to market, tie it up in neat bunches about six inches in diameter, putting two ties of bass matting, one near the butts and the other about two inches from the top. Wash in clean water before making into bunches.

**Beans.**—These are very easily killed by frost, and it may be necessary to repeat the early sowing. The Valentine is the earliest, but the Six-weeks is more prolific. For pole beans, put out the poles before sowing. For Lima beans see page 145.

**Beets.**—Those sowed last month should now be up. They may still be sown. The Bassano and Early Turnip are best for Summer use. See last month's Calendar. The winter sorts may be put in the last of the month. Deep worked soil, where there was a well manured crop last year, is best.

**Borecole or Kale.**—Treat precisely as cabbages.

**Broccoli.**—This is somewhat like cauliflower, but is much inferior to it; as it is considered a surer crop, it is cultivated by many who do not succeed with cauliflower. The same cultivation for both.

**Burnet.**—Much used in salads by the Europeans. See page 145 for sufficient directions.

**Cabbages.**—Those in hot-beds should be hardened off ready for transplanting. See full directions in Farm Calendar, which though given for field culture, are equally applicable in the garden. Sow seed in open ground for main crop of winter cabbages.

**Capsicum or Peppers.**—These are very slow in their early growth and need the heat of a hot-bed to give them a start. When the season is long, they may be sown in the open bed. Plant out when the weather gets settled, and give them the warmest place in the garden. Set 18 inches or 2 feet each way, and hoe frequently. The Squash Pepper is best for plain pickles; the Large Mountain for stuffing; the Cayenne for vinegar, or medicine.

**Cardoon.**—Sufficient directions are given on p. 145.

**Carrots.**—The early crop should have been put in last month, but if the weather prevented, loose no time in sowing. The seed is slow in coming, and it is a good plan to put a few radish seed with it, which will serve to mark the rows. See page 142.

**Cauliflowers.**—Do not let a single failure deter you from attempting to grow this choice vegetable. Get seed from reliable sources and follow the hints given on page 146. Those in hot-beds should be planted out, or if the weather is unsuitable put them in small pots, and keep in a cold frame.

**Celery.**—Follow directions given on page 146.

**Chives.**—Put out sets early. They make a nice edging to small beds.

**Cold Frames.**—Get the plants out as rapidly as the weather will allow. Those where plants still remain, should be uncovered every fair day.

**Compost Heaps.**—Begin the season with the deter-

mination to have no waste of fertilizing material. Make a compost heap in a hidden corner, but easy of access. If necessary, plant some rows of sweet corn to keep it out of sight, but do not let it get out of mind, and place here every animal and vegetable substance that will make manure. The coarse litter raked off of asparagus beds can be put here at once. All the garden refuse, weeds that have not matured their seeds, muck, ashes and an occasional load of manure should be added. By the end of the season there will be a pile of valuable compost, ready for use next Spring.

**Corn.**—Plant as soon as danger of frost is past. There are many farmers who rely upon field corn to supply the table. No one will do so after trying some of the improved sweet varieties. The Dwarf Sugar and Darling's Early are among the earliest sorts; the Stowell or Evergreen is fine, but longer in maturing. It should be sown as a succession to the early sorts. It is a good plan to put in seed every week or two until July. Where the garden is not sheltered from strong winds, much protection may be given to tender things by planting rows of corn so as to ward off the prevailing winds.

**Cress.**—Sow for succession. The insects will now be troublesome. Give ashes and plaster when up.

**Cucumbers.**—Those started on sods as directed last month will be ready to set out. Make the hills rich with manure, well spaded in, and cover the plants with frames made as directed above. Put the frames on towards night, and keep them on until 8 or 9 o'clock in the morning. Sow in the open ground as soon as it is warm. It is a good plan to put in some extra seeds every few days; the insects will attack the youngest plants, and any superfluous ones left uninjured may be pulled up.

**Egg Plants.**—These need a long season, but should not be put out until warm weather is fully established. Those in the hot-beds may be potted off and placed in a cold frame, until the weather will allow of their being put out. Give them a warm, rich spot, hoe frequently, and supply with liquid manure.

**Garlic.**—Plant the sets or "cloves" three or four inches distant, in rows one foot apart.

**Herbs.**—Under this term are included those plants which are cultivated for use as flavoring ingredients in cooking, or for medicinal purposes. Basil, Sweet Marjoram, and Summer Savory, are the most frequently cultivated annual culinary herbs. Sow the seed thinly in rows. Thyme and Sage are perennials, and may be raised from seed, by cuttings, or by the division of old plants. Caraway, Dill and Coriander are raised from seed. Balm, Wormwood and Mint are the principal medicinal herbs grown in the garden, and are readily multiplied by division.

**Hot-Beds.**—The plants should be set out from them as soon as practicable. Give air every day to those which remain, and on pleasant days remove the glass entirely. As soon as the beds are out of use, put the sash and frames away under cover. If the manure is not needed immediately, make it into a neat heap and put a covering of soil over it.

**Insects.**—The depredations of these begin as soon as vegetation commences, and they must be combated in various ways. Dusting the young plants with ashes, plaster, or air-slaked lime, helps keep them off. Use every means to promote a vigorous growth so that the plants may get, as soon as possible, large enough to withstand their attacks. Kill every caterpillar or grub that comes in your way and every moth or butterfly that you can entrap.

**Kohl Rabi.**—Sow and cultivate the same as cabbages. Plant at one foot apart in two foot rows.

**Leeks.**—Sow in rows as directed for onions, in good soil. It is better to have the rows 18 inches apart to allow room to earth up. This vegetable is not as generally cultivated as it should be. It is used in soups and stews, and its flavor is preferred by many, ourselves included, to that of the onion.

**Lettuce.**—Transplant and sow every two weeks to keep up the supply. See note on page 145.

**Liquid Manure.**—Have a tank for liquid fertilizers

if it be nothing more than an old barrel or hog-head sunk in the ground. It should be near a supply of water, and be covered to prevent evaporation and accidents. If placed where the sink water from the kitchen can be turned into it, all the better. Hen, sheep, or even barn-yard manure may be used. The liquid should not be too strong—not darker colored than weak tea. It should be applied at evening, or better just before a rain, when it may be used stronger. Wonders in the way of forwarding vegetables can be done with it.

**Martynia.**—This is grown for its unripe fruit which is used for pickling, and by many considered the best vegetable for that purpose. Sow in good soil three feet apart. The pods should be gathered before they lose their tenderness.

**Melons.**—Plant out those started on sods, and sow when the ground is warm, as directed for cucumbers. Do not attempt to grow too many kinds in a small garden, as they will mix. The Green Citron or Nutmeg when pure, will give general satisfaction. We have before spoken in praise of the White Japan, but the seed is scarce and not generally obtainable; will be plenty enough next year.

**Mushroom Beds** may be made for Summer use.

**Mustard.**—Sow by itself for salad and greens.

**Nasturtiums or Indian Cress.**—These are grown in the vegetable garden for the unripe fruit, which is used as pickles, and in the flower garden as an ornament. There are dwarf and running sorts in great variety. The tall growing kinds are preferred, as they give a greater abundance of fruit. A moist place which is shaded during the heat of the day is best for them. Supply them with brush or strings.

**Okra.**—This is a plant not generally known, but is becoming quite common in our city markets. It belongs to the same family as the Hollyhock and the Cotton, resembling the one in its leaves, and the other in its flowers, while its fruit is quite unlike in appearance to that of either. The seed pod is the part used, it is 4 to 6 inches long and many angled or ridged. Taken while green and tender it has an abundance of mucilage, and is used in soups and stews which it thickens and enriches. Boiled and dressed with drawn butter, like asparagus, it is, to our taste, a very palatable vegetable.

**Onions.**—Get the seed in as soon as possible, according to directions on page 142. Top and potato onions should be set in good soil, 3 or 4 inches apart.

**Parsley.**—Sow at once if not already done. It is the slowest to grow of all the garden seeds and the weeds usually get the start of it. It will be well to burn over the bed to kill the weed seeds.

**Turnips.**—Deep culture is needed for their full development. Get new seed, and roll or press the ground firmly after sowing—any time in the month.

**Peas.**—Sow the Wrinkled Marrow varieties, such as Champion of England, to succeed the early sorts. See article in April *Agriculturist*, page 115. Hoe and provide brush for those already up.

**Potatoes.**—Complete planting the early varieties. Hoe as soon as large enough. A handful of ashes and plaster applied to each hill, when well up, will often wonderfully improve their vigor.

**Radishes.**—Continue to sow for succession. If any sowing is found to be badly infested with worms, dig the crop up at once and destroy it, as it is then useless to expect radishes, and by leaving it to grow, insects will be multiplied.

**Rhubarb.**—Roots may still be set, if not too far advanced, as directed in last month's Calendar. Well established plants will soon afford a supply. The leaves should not be cut, but taken off with a side-wise pull, taking care not to injure the bud.

**Salad.**—Full directions were given in the March *Agriculturist*, page 84. Get the seed in very early. Hoe, weed, and thin out as soon as large enough.

**Seeds.**—Put out roots saved for producing seeds, if not already done. Let none but the earliest and most vigorous branches grow. Do not attempt to save cabbage seed by planting out a stump. This seed is generally obtained from those who make a

business of growing it. It can be done by selecting the best specimens of well wintered cabbages, setting them out entire, and cutting away all but the main flower stalk. In this way the stock will be kept good. Do not plant varieties of the same vegetable near each other, for fear of hybridizing.

**Spinach.**—The wintered stock should now yield an abundant supply for the table. In cutting, leave enough for seed. This is what botanists call a *dioecious* plant, that is, it produces its barren or male flowers on different plants from those which bear the fertile flowers. They can not be told apart until they come in flower, when the barren plants are known by the greater show they make, and the abundance of pollen they produce; one of these is sufficient to fertilize a dozen of the others. Sow the spring varieties at intervals for succession, in rows a foot apart, and thin to four or five inches.

**Squashes.**—The early kinds started on sods should be put out as soon as the weather will allow. Treat as directed for cucumbers. Plant Hubbard, Marrow, and other late kinds as soon as the soil is warm. Put the hills 8 to 10 feet apart each way. Besides putting manure in the hills, enrich the whole ground as the vines put out clusters of roots or feeders from each joint. Keep the young plants well dusted with plaster or air slaked lime until they have made 5 or 6 leaves, to keep off the striped bug, and watch for the black squash bug, which may be found on the underside of the leaves in the morning; destroy it by hand picking.

**Sweet Potatoes.**—Those who cultivate only a small quantity will find it better to purchase the plants of those who make a business of raising them. See advertising columns. The 15th of the month is quite early enough in the vicinity of New-York to set the plants. Directions for successful culture are given on page 114, April *Agriculturist*.

**Tomatoes.**—Sow in open border for late crop. Transplant from hot-bed as soon as the weather is settled. If the season is unfavorable and there is danger of the plants getting too large, pot them and keep where they can be covered at night and during cold days, until they can be turned out. Four feet each way is quite near enough. See page 114.

**Turnips.**—Loose no time in getting in the early sorts. Advance their growth as rapidly as possible by hoeing. Thin and weed as soon as needed. Give ashes and plaster as soon as up.

**Watermelons.**—These should not be planted until the ground is thoroughly warm, and June is generally preferable to May. Warm light soil, and plenty of manure are required. Put in an abundance of seed to each hill, as much of it fails to germinate.

**Weeds.**—Begin the fight as soon as the enemy is in sight. Hoe, pull, and otherwise destroy.

**Winter Cherry.**—Cultivate and treat as Tomatoes.

### Fruit Garden.

After the full directions given in last month's Calendar, there is but little to be added. Plants may still be set out if they are not too far advanced.

**Blackberries.**—Cut back to near root, before setting.

**Currants and Gooseberries.**—These start very early, but may be removed even after the buds have burst. Manure established bushes.

**Grape-vines** may be successfully planted if they were taken up early and kept back in a cool place. In purchasing do not choose large vines. Vines two years old, with good roots, are preferable to older ones. We have seen some vines sold, this year, with large canes and small roots, and only fit for the brush-heap.

**Insects.**—Make war upon them from the beginning with soot, ashes, soap-suds, and hand-picking.

**Raspberries.**—Cut out all weak canes, and fork in a dressing of manure.

**Strawberries.**—Make new beds as directed on page 146. Those grown on the hilling system should have the runners picked off as fast as they appear.



After hoeing them out thoroughly, give a good mulching of cut straw to keep the fruit always clean.

**Water.**—If a dry spell should occur, mulch and water all recently planted trees and shrubs.

**Weeds.**—Hoe the surface frequently, and keep them down from the first. Let not a weed be seen.

### Flower-Garden and Lawn.

If all preparatory work is not completed, it should be got out of the way as soon as possible. Sowing, planting, turning out plants from frames and green-houses, will give abundant occupation.

**Annals.**—Sow according to directions on p. 148.

**Bedding Plants.**—A selection will be found on page 147. Those remaining in the frame or green-house should be kept from making too vigorous a growth before they are turned out into the borders. The time for setting out the bedding plants must be governed by the season. Better be a little late than to run any risk.

**Box Edging.**—Reset, clip old edgings; fill vacancies.

**Bulbs.**—Many of these have passed out of flower. The garden ought to be gay now with Tulips and Hyacinths; the bloom may be much prolonged by shading with an awning during the heat of the day.

**Carnations.**—Plant out and sow seed. Tie the flower stalks to stakes.

**Cypress Vine.**—Scald the seeds before sowing. The White and Scarlet make a pretty contrast.

**Dahlias** may be started on a gentle hot-bed or in a cold frame. Cover the roots with rich earth. They may also be buried in a warm and sheltered border, where they may be covered at night with a mat or other protection.

**Daphne Cneorum.**—We have before noticed this most beautiful little evergreen shrub. It flowers freely, often blooming Spring and Fall. Plant early.

**Dicentra.**—For hardiness, ease of propagation, and beauty of foliage and flowers, there is no plant superior, if equal, to *Dicentra spectabilis*. It is propagated by dividing the root.

**Evergreens.**—Plant upon the lawn, observing the precautions mentioned under Orchard and Nursery. Dwarf sorts, especially the broad-leaved kinds, should be introduced into the borders with a view to winter effect. Rhododendrons, Laurels, Tree-Box, and some of the Dwarf Pines and Junipers, are appropriate for this purpose.

**Funkia**, or Day Lilies. Divide clumps and reset.

**Fuschias.**—Turn out after frost is over, and keep tied to stakes. They do best if partially shaded.

**Geraniums.**—The bedding sorts may be set out. Tom Thumb is most commonly used for this purpose, but there are many others desirable for their beauty of flowers and foliage.

**Gladiolus.**—Plant out the bulbs in good soil. The fine varieties are now at a moderate price, and should be in every garden.

**Grass Edgings.**—Set as directed last month. Keep nicely trimmed and cut.

**Gravel Walks.**—Keep free of weeds; roll often.

**Heliotropes** should not be brought out until the weather is quite warm.

**Honeysuckles** and other woody climbers, set early. Tie up to trellises. Layer to increase the stock.

**Japan Lilies.**—These are perfectly hardy. Set the bulbs early. They are worthy of a place.

**Labels and Stakes.**—Have a good supply of Dahlia stakes in readiness, as well as smaller ones for Carnations, etc. On sowing seeds, label each kind before putting in another. A smooth pine label smeared with a little white paint, and written on with the lead-pencil before the paint is dry, will answer best. We do not like "indelible pencils."

**Lantanas.**—Set in poor soil, when safe from frost.

**Lawns** should be mowed evenly as soon as the grass is long enough to cut. Manure if needed.

**Mignonette.**—Sow where wanted, not transplant.

**Petunias.**—These popular plants may be grown as annuals, as they bloom very soon from the seed. The choicer sorts are propagated by cuttings.

**Roses.**—These should be in great abundance in every garden. Turn those wintered in pots into open borders. Keep the climbers neatly tied up.

**Transplant** from hot-beds. Tender plants may

be shaded during the heat of the day by a shingle.

**Tropaecolums.**—Sow in a warm place.

**Tuberose.**—Plant early in rich soil in a warm spot.

**Verbenas.**—Put in masses, securing variety in color.

**Virginia Creeper.**—No vine exceeds this in beauty of foliage, hardiness, and cleanliness—qualities which render it desirable for piazzas and buildings. Put out early this month.

**Weeds.**—Keep them out. The onion or bayonet hoe is a useful implement in flower-gardens.

**Wistaria.**—Set early. This beautiful most desirable climber is quite hardy around New-York.

### Green and Hot-Houses and Conservatories.

During the present month all but the tropical plants are taken out of doors. The removal should be gradual, beginning with roses, verbenas, and other hardy kinds, and bringing out the others as the weather becomes settled and warm. Those which are retained in their pots should be placed where they will not be overturned by high winds, and where they will be shielded from the intense sun. An evergreen hedge or screen affords an excellent protection. In the hot-house where tropical plants are kept, much less fire heat will be needed, and the ventilators should be kept open as much as possible without unduly lowering the temperature. Although many plants will be removed, the skilful gardener will not let the house appear deserted. Those which remain should be arranged so as to make a good display, and a few free-blooming green-house plants or even annuals should be kept to relieve the barrenness.

The bedding plants, when put out, will be frequently found to be pot-bound. In order that these should have a vigorous growth it is necessary to untwist and spread the roots, and, if many of these are broken, head back the plant. When badly pot-bound plants are set out without this precaution they do not flourish, and it will be found, when taken up in the Fall, that the roots have scarcely extended beyond the original ball.

**Cactuses.**—Plants of this family may be propagated by cuttings, which will be less likely to damp off if allowed to dry for a few weeks.

**Camellias** should now be in a fine growing condition. Syringe often, and when put out of doors see that they are shaded during the heat of the day.

**Cuttings** of woody and succulent plants may still be made. Shade them until they have struck root.

**Grapes.**—As these will be in such different stages of forwardness, no definite directions can be given. Late vines just in flower should have but little syringing. Allow the bees free access to them. Keep fruiting vines well syringed, and pinch back all growing shoots that will interfere with the development of the fruit. Use sulphur for mildew.

**Inarch** plants that are not readily struck from cuttings, such as Camellias, Oranges, Lemons, etc.

**Insects.**—Do not let these be neglected in the press of other work. Entrap and kill every moth.

**Pelargoniums.**—Make cuttings of the prunings.

**Water** freely, as evaporation is now more rapid.

### Apiary in May.

The necessity for feeding weak stocks may not be entirely past before white clover blossoms. Should unfavorable weather for the bees to work, occur during the flowering of fruit trees, but little addition can be made to the stores. A swarm may occasionally issue at such a period, from a second-rate hive which has husbanded its stores by rearing no drones. Should this occur while flowers are scarce, they will need a supply of provisions. Danger from robbing is not entirely past until plenty of work among flowers keeps the bees from mischief.

An experienced bee-keeper can tell with much certainty, by an occasional examination of the hive, when to expect a swarm. This event is not always indicated by the bees clustering thickly on the outside of the hive. They frequently do this when there is no call for activity in the fields. To examine for signs of swarms, the bees are first

quieted by blowing tobacco smoke among them, and the hive is carefully inverted. If honey is being obtained in abundance, a swarm will usually issue the first fair day after one or more queen cells are sealed over. These cells, numbering from three to twenty, are to be found on the edges of the comb. They are easily distinguished, being much larger than ordinary cells. Have stands, hives, etc., all in readiness before swarming commences. Newly-painted hives are objectionable; better leave them unpainted until later in the season, when the bees will not leave so readily. Worms will continue to be found on the floor of the hive until the bees have increased so as to occupy almost the whole space. Many can be trapped. Split sticks of elder, remove the pith, cut small notches in the sides through which the worms may enter, and lay them flat side downward on the bottom of the hive. Examine them every few days and destroy the occupants. A wren-horse near the stand will aid in extirpating the millers. Boxes should not be placed on the hives while the bees are working among dandelions, if honey of a good color is desired. A yellow stain is imparted from the dandelion flowers.



Containing a great variety of items, including many good Hints and Suggestions which we give here in small type and condensed form, for want of space elsewhere.

**Good Premiums Open.**—We refer our readers to pages 160 and 155 for some premiums worth looking after. The grape premiums will close very soon.

**The Calendar of Operations**, or hints on work for the month, occupies considerable space at this season. The suggestions are numerous, and will doubtless afford material for thought, and hints for practice. We trust the paper would not be considered valueless, if there was nothing in it after this fifth page.

**To Correspondents.**—Perhaps no other apology need be given to those whose letters are yet unanswered, than to say that our letters average over 300 a day throughout the year, and that two-thirds of them arrive between Dec. 1 and May 1. The "Farm, Garden, and Household," embrace topics almost numberless—different field and garden crops, fruits and flowers, modes of tillage; domestic animals and their diseases; household labors, etc. The questions asked upon these, by a hundred thousand intelligent readers, are so numerous that we cannot promptly attend to them all, even were we able, without thought and an investigation, to respond in all cases. We have several hundred letters on hand marked "for immediate reply;" the "immediate" will be just as soon as we can. We doubt if any of our correspondents work as many hours a day (and night) as do the principal editors of the *Agriculturist*.

**How to Invest Money.**—Many of our readers are continually inquiring how they may invest a little surplus money. We can not answer the queries by letter, and do not like to advise others. We are not overburdened with money, but as our subscriptions are mainly received at the beginning of the year, we have to carry considerable sums to meet the expenses of the summer and autumn months, and this year we have seen nothing better than the "Five-Twenty U. S. Bonds." They pay six per cent interest per annum, in gold—the half year's interest payable on May 1st and November 1st, and are issued in sums as small as \$50. These bonds are always salable, so that one can convert them into money at any time, and they pay interest to the holder every day he has them. In time of peace, such bonds have stood as high as 20 to 25 per cent premium. (We only wish that the high price of printing paper did not prevent our carrying a good lot of them to future years.) For temporary investment, those with "interest coupons" are best; the coupons can be cut off as they become due, and be used the same as gold. For permanent investment the Registered Bonds are perhaps preferable, as they can not be lost or stolen, or destroyed by fire, when they stand in the name of the purchasers. Full particulars about these bonds, the mode of obtaining them, etc., will be found on page 156, in the advertisement of Messrs. Fisk & Hatch, who are recognized Agents of the Government, and to whom any investments can be confidently entrusted.

**Warts on Horses.**—John Emory, Randolph Co., Ill. The most certain cure for warts is to remove them with a sharp knife. Caustic applications may be successful, where cutting is not practicable. Nitrate of silver, (lunar caustic) is often used for the purpose. Mayhew, recommends a paste made of sulphuric acid and powdered sulphur, which can be applied by means of a flat piece of wood. Warts should be removed as soon as they make their appearance; if neglected they become unsightly, and additional ones are apt to grow.

**Lice on Horses.**—Elijah Bailey, Lambton Co., C. W. Sweet oil, well rubbed into the hair of the horse will destroy lice. Other oil or grease will answer, but it would not be so agreeable to the animal or his owner.

**To Prevent Sows Over-laying Pigs.**—This is a frequent occurrence, generally happening in small pens or where much long straw is allowed for bedding. The Ohio Farmer suggests a remedy to prevent the pigs from being crushed against the wall, viz.: to put a board in the form of a shelf around the wall, about a foot above the floor. The board may be 8 or 10 inches wide. This will leave a space underneath for the pigs, where the sow can not lie upon them.

**For the Rats.**—Mahlon Guenn, of Morris Co., N. J., writes to the *Agriculturist* that, after 20 years of ineffectual contest with the rats in his barn, he has finally expelled them by sprinkling fresh slaked lime around the sills, and wherever the rats will be likely to get their feet into it. They don't like it, and quit the premises. Mr. G. pronounces this a certain remedy. Several other correspondents recommend chloride of lime for the same purpose. Some say it burns their feet, and others that the rats don't like the odor of the chlorine gas.

**Rats Gnawing Harness.**—J. C. Marsh, Winnebago Co., Wis., inquires how to prevent rats gnawing harness after it has been oiled. Kill the rats.

**A Great Egg.**—I. Sues, Jefferson Co., Ky., sends a description of a mammoth egg laid by a hen 10 months old, a crossed breed of the Spanish and common dunghill. It measured nine inches in circumference one way, and seven inches the other, and weighed five and 1-16th ounces. That is large enough to crow over.

**What the Dogs did in Ohio.**—A. B. West, Licking Co., Ohio, sends to the *Agriculturist* an extract from the Report of the State Auditor of Ohio, by which it appears that during the last year the dogs killed 32,061 sheep, worth \$63,868.37, and also injured 24,301 sheep to the amount of \$23,224. Yet there are men opposed to dog laws!

**To Expel Hornets, etc.**—Thomas H. Smith, Rensselaer Co., N. Y., writes that hornets, bees, wasps, etc., may be effectually expelled from their quarters by spirits of turpentine, applied with a large syringe.

**Lice on Cattle.**—Ely Stone, Fairfield Co., O., Apply grease or oil to the parts affected, rubbing it well through the hair, on to the skin. Kerosene oil will perhaps answer a good purpose, if most convenient.

**Weight of Hay in a Mow.**—A Pennsylvania farmer found, upon actual trial, that 450 cubic feet of hay, taken near the top of a mow, made a ton in weight. The average was about 400 cubic feet—less near the bottom of deep mows, and more at the top of the mow. This would be a ton for every foot in height of a mow 20 feet square; or 10 by 40 feet; or 15 by 26 2/3 feet.

**The Corn-Marker Improved.**—Several correspondents write that they use a corn-marker similar to the one described on page 41, (Feb. No.) but with the addition of another runner, so that three marks are made at each crossing of the field.

**Invention of the Grain Cradle.**—Joseph E. Armitage, Bucks Co., Pa., inquires, "When, where, and by whom was that useful implement, the grain cradle, invented?"

**Flax Puller Wanted.**—A. S. Plummer, Portage Co., O., inquires if there is any machine worked by horse power, for pulling flax. We know of none. Such a machine if simple and effective would be valuable.

**Sorgho in Connecticut.**—A correspondent at New-Milford, Conn., writes: "We intend this year to give sorgho a thorough trial. Two mills for the manufacture of the cane into syrup are being erected in this town; one by Mr. George McMahon, the other by

Messrs. Elijah Hall & Son. There will be at least 30 acres of cane planted in this immediate vicinity."

**Sorghum Syrup** can be made to equal the best article turned out at the sugar refineries. A keg sent to us by Blymer, Bates & Day, Mansfield, Ohio, made on Cook's Evaporator, without the use of chemicals or defecating substances, is very good. Good apparatus carefully used is requisite for obtaining a superior article.

**Yield of Flax per Acre.**—From 9 1/2 acres of the McKee farm in Washington Co., N. Y., sown with flax last year, there were obtained 91 bushels of seed, and 4,229 lbs. of lint. The seed was sold for \$2.87 1/2 c. per bushel, and the dressed flax at 25 1/2 c. per lb., making the product of an acre \$141. The cost for dressing the flax was 2 1/2 c. per lb., or \$11.13 per acre.

**Large Product of Two Potatoes.**—N. Varnum, Hancock Co., Me., writes: "Last Spring I planted two Garnet Chili potatoes, 4 eyes in a hill. Two hills did not come up, and two others sent up single stalks. They received ordinary cultivation; the product 85 lbs."

**Winter Wheat in Iowa.**—E. Kenyon, Henry Co., Iowa, writes that winter wheat has given better crops than the Spring variety, in that section, for two or three years past: it also now commands 20 to 25 cts. per bushel more in price. Spring wheat has usually been relied on, but much winter wheat was sown last Fall.

**Straight Honey Combs.**—M. Quimby, during a recent visit at the *Agriculturist* office, stated, that he had found a simple and costless plan for securing straight combs on the movable frames. He elevates the front or back of the hive about 30 degrees, the frames running from front to rear,—and finds the bees invariably build straight combs. In some 50 hives on which the experiment was tried, there was not a single failure.

**Unnatural Grafting.**—A story is going the rounds of the papers that a Mr. Smith—whether John Smith or not is not stated—has great success in raising fruit trees by grafting on maple and walnut stocks, and it is claimed that much harder trees are obtained. We shall be ready to believe this when we see it.

**Whale Oil Soap Substitute.**—Several subscribers living where this can not be procured, ask us what will serve as a substitute. Where whale oil can be obtained, the soap may be made in the same manner as soft soap. Probably the efficacy of this kind of soap is due in great measure to its disagreeable odor. A friend of ours, uses a compound with great success upon his peach-trees which might be tried on other plants. He mixes a strong decoction of tobacco and aloes, and dissolves soft soap in it, in no very definite proportion.

**Blackberries.**—Those recommended by the New-York Fruit Growers' Society were: New-Rochelle (which is sometimes called Lawton); the Dorchester; and the Cut, or Parsley Leaved. The last named is new and looks pretty, but we are not yet prepared to recommend it for producing fruit on a large scale.

**Cold Grapery.**—"J. J." After the vines are planted, the after care need not occupy over an hour a day. The Black Hamburg, Grizzly Frontignan, and White Sweet-Water or White Muscat of Alexandria, would give a good variety.

**Grape Queries.**—B. L. Maurer. New and vigorous vines can be obtained so easily from cuttings and layers that it is hardly worth while to be at the trouble of transplanting old ones. If done it should be in the Fall or early Spring. (Cannot tell about lands.)—Ectus. The Adirondack is not well enough known for us to decide. A. H. Sprinkle, Stark Co., O. If the old ground has been well cultivated we should prefer it to new, for planting with vines.

**Grapes in Spring.**—At the Fruit Growers Meeting, March 26th, some fresh, plump Isabella grapes were presented by Samuel Mitchell, of Steuben Co., N. Y. They were packed, at the time of picking, in boxes one foot square and six inches deep, three layers of bunches with sheets of newspaper laid between them. They were then put in a cool cellar and not opened until Spring, when they came out with more flavor, and greener stems than we have before seen.

**Chrysanthemum—Maizena.**—Lucie A. Partridge. In pronouncing the accent is on the second syllable, thus: chry-san-the-mum.—Maizena is named from Maize (Indian corn), from which it is made; it is

not materially different from corn starch, the name Maizena being a trade mark for a good quality of that article.

**Gladiolus and Japan Lily.**—J. S. F. The seeds of these should be sown as soon as the soil is warm, in a rather shady place. The bulbs must be taken up in Autumn when the leaves die off. They are three or four years in coming into flower.

**Opium Poppy.**—Robt. Bickford, Boyle Co., Ky. Early in the present century an unsuccessful attempt was made to produce opium in this country. We have heard of no successful trial. Narcotic plants are peculiarly modified by the climate in which they grow. The common hemp produces in Asia the *Hasheesh*, which is celebrated throughout the East for its intoxicating qualities, while here it yields nothing of the kind. We have not the S. C. Seed you ask for.

**Worms Among the Verbenas.**—Mrs. A. R. Sprout, Lycoming Co., Pa., finding that her Verbenas stopped blooming and the leaves withered, supposed that the trouble was caused by drouth. As no amount of watering restored them, she dug them up and found that "every root and fibre was a living mass of insects." By thoroughly washing the roots and replanting she succeeded in saving the choicest specimens. She has a seedling verberna that is "delightfully fragrant," and asks if it is common for them to be so. There are several, so called, fragrant verbenas, but we have never seen one delightfully so. We should be glad of a cutting.

**Roses and Fuschias.**—L. C. Weaver, Stearns Co., Minn. These can not be sent by mail. We do not keep plants of any kind for sale, but hand all orders which come to us to some one in the business. Our aim is to have no pecuniary interest in the sale of anything, so that we be without the slightest inducement to over-estimate the value of any article.

**Why Cactus does not Flower.**—"E. A. H.," Naugatuck, Ct. The reason probably is that it is too wet. The Cactus family are generally from countries where there is no rain for nine months in the year. Dry it for a few months—you need not fear hurting it—then on giving water it will probably throw out flower buds.

**To Save Trouble of Subscribing Every Year.**—A California subscriber writes: "It is no little trouble to send away off to the *Agriculturist* every year, the dollar subscription. We have no small bills, and if we had, it would still be a bother to send the small sum every year. Our paper is often interrupted for two or three months, as we forget to renew before the stoppage of the paper. I propose that you let a man pay \$5 at one time, and then send him the paper six years. The extra year will be partly covered by the interest, and by the saving of risk in five different remittances, as well as the labor of re-entering the names every year." We accept the proposal of our correspondent, and extend it to any others who may prefer this course. It would doubtless be convenient to many to send in for two or three, or more years at a time, and it would save us no little labor in re-entering and posting the names every year. When three or more years are sent for, a receipt noting the full time paid for will be returned to the subscribers when requested.

#### Meteorological Notes from Illinois.

—J. S. Rodgers, of McHenry Co., Ill., who has kept records for the Smithsonian Institute, sends us a summary of his observations for 1862, which we have not room for in full. The range of the barometer during 1862, at an altitude of 842 feet above the sea level, was from 28.46 inches to 29.66 inches. The thermometer varied from 98° to 15° below 0. Mean of 4 daily observations through the year, 45° 6. Rain fall, 38.47 inches. Snow 42.80 inches. Latest frost in Spring, on May 20th; earliest frost in Autumn, October 5th.

#### Agriculture of Massachusetts, by

C. L. Flint; being the Tenth Report of the Secretary of the Massachusetts Board of Agriculture for 1862. A commendable feature of this report is the promptness of its appearance, which enables the farmer to profit at once by whatever valuable suggestions it contains. The more important contents are a report upon Pleuro-pneumonia—the fatal cattle disease; an interesting account of a series of experiments upon the use of manures; an article upon the insects beneficial to agriculture, and a report upon fruit culture. These, with other papers, including one giving the Secretary's observations upon European Agriculture, make up not only a useful but a really readable volume. Mr. Flint is doing good service to the cause of Agriculture in Massachusetts, and we regard this Report as another evidence of the industry and good judgment which he brings to the work of his office.



**Is Old Seed Wheat Best?**—To this question, asked in a previous number of the *American Agriculturist*, several correspondents have answered "Yes"; none say no. D. Steck, Lycoming Co., Pa., writes thus: "Our experience here is, that after three or four years, wheat begins to degenerate or 'run out;' or rather it becomes more susceptible to injury from insects. The smooth varieties of white wheat having failed, the bearded white chaff Mediterranean was introduced; but in a few years this became subject to the Hessian fly, or to the Midge, equally with the white, previously used; and now the indications are that the 'Lancaster' or Red Mediterranean, introduced three years ago, will suffer the same fate. But of some seed of the white Mediterranean sowed the second year after its introduction, and sowed three years later, the crop was equal to the original, while new seed from that grown five years in succession was nearly all destroyed by insects. It is certain that seed wheat will keep good three years (and I know not how much longer), especially if it be kept dry, in the chaff or unthreshed, and free from the attacks of rats and mice."

**Bulkley's Seedling Potato.**—Ectus. This is considered a good variety and preferred by some to the Peach-blow.

**Lime—Quantity—Experiments.**—J. S. Parker, York Co., Me. In the lime directions, page 107 of April *Agriculturist*, the quantities recommended referred to the bushels of *unslaked* lime, in the condition it comes or should come from the kilns to market. The quantity per acre will depend wholly upon the character and condition of the soil, as described in our article. It is well in all cases to leave a small strip through the middle of a field without lime, and also to apply an extra amount to another strip, so as to observe the comparative results upon two or three succeeding crops. The information thus gained will be useful to the experimenter himself, and to others.

**Hair as a Manure.**—B. Marple, Baltimore Co., Md. We are not able to tell you the precise money value of hair as a manure. As it contains about 16 times as much nitrogen as barn yard manure, it is theoretically worth 16 times as much; we doubt not it is practically worth much more ton for ton. But hair is very slowly decomposed and its fertilizing effects will be only gradually developed. It would no doubt be a very lasting manure and could it be obtained at a reasonable price we should experiment with it, applied directly and in compost.

**A Manure Bill.**—A recent estimate of the amount of artificial manures annually used in England gives the following as about the figures:

Guanos.....	\$14,300,000	Nitrate of Soda..	1,000,000
Bone dust.....	1,200,000	Sul. of Ammonia	450,000
Bone S'phosphate	4,000,000	Other substances	250,000
Coprolite do.....	1,800,000	Total.....	\$23,000,000

This amount of twenty-three millions, be it noted, is for fertilizers the materials of which are mainly imported from abroad. The first and fifth items, amounting to over \$12,000,000, are used just as imported, without having their value increased by manufacture.—By the way, can not some statistical reader give us an approximate estimate of the amount annually paid by the farmers of Long Island, for stable manure from New-York City and Brooklyn, for ashes and lime, and for fish used as manure? It would be interesting also to know the amount used by some of the individual farmers.

**Use of Liquid Manure.**—R. P. Clarke, Cortland Co., N. Y. Fill the tanks with muck to absorb all the liquid, and work it over until fine, then apply to crops in the same manner as barn-yard manure.

**Moss on Meadows.**—Samuel McWilliams Chester Co., Pa. Apply a liberal top-dressing of lime and if the grass be very thin, go over with a heavy harrow, sow grass seed, roll it in and top dress with well rotted fine barn yard manure.

**Scab in Sheep.**—"Subscriber," Damascus, O. After shearing, scour the scabs off with stiff brushes and a suds made of a decoction of tobacco and soft soap, then dip the sheep in strong tobacco water with a little spirits turpentine thrown in after dipping every third or fourth sheep. Randall in his "Sheep Husbandry" says, he entirely cured a flock by this treatment.

**Millet, etc., for Poultry.**—W. F. Pillsbury, Merrimac Co., N. H. Fowls are fond of millet, and it is considered excellent. Buckwheat is also good.

**Setting the Mole-trap.**—"J. E." and others. In the engraving given a year ago this month, (p. 141), the cross-piece, *f, g*, turns on a pivot in the upright: so also does the piece *e*. The heavy block, *b*, fastened to the strips, *c*, moves up and down on *a*, but is

help up by the short end of *e*. When *g*, is raised, the end of *e*, is released from the notch, and flies up; then *b*, slides off from the short chamfered end and drops down, carrying the points into the mole track. Perhaps the trap shown on page 140 of this paper may be more easily made, and be equally effective.

**Starting a Peach Orchard.**—Geo. T. Russell, Cheshire Co., N. H. The usual method is to plant trees one year after budding, selecting from the nursery, so as to have only known varieties. As seedlings are harder than budded trees, in colder climates pits of good sorts, from bearing trees in your vicinity, may be planted. Peaches come nearly true to the kinds planted, so it is not difficult to raise an orchard of good seedlings. In your northern latitude, 15 feet (193 to the acre) is a suitable distance for peach trees, and 30 feet (48 per acre) for apple trees, so as to prevent shading.

**A Good Fruit Locality in Niagara Co., N. Y.**—We remember that some 25 years ago, when peaches and other fruits were almost wholly cut off by Spring frosts, there was a belt along the southern shore of Lake Ontario, where, owing to the influence of that large body of water, the peach crop was saved and an abundant yield secured. We believe this experience was not confined to any particular year. In a recent letter to the *Agriculturist*, a subscriber gives some statistics just gathered, concerning the four Lake School Districts, in the northern part of the town of Wilson, Niagara Co., comprising a strip about 1½ miles wide, and 6 miles long: Apple trees growing, 12,434, of which not half are yet bearing; product last year 18,275 bushels.—Pear trees growing, 3,132.—Grape vines growing, 12,578, all Isabellas; product last year 57,500 pounds; wine manufactured, 1100 gallons. One vineyard of 500 Isabellas yielded last year, by actual weighing, 17,000 lbs. of grapes, of which 10,500 lbs. were sold, and 6,500 made into 631 gallons of wine. (The age of the vines is not given. Nothing is said of the peach crop.)

**Prolonging the Strawberry Season.**—E. Westfall, writes to the *Agriculturist* that in Autumn he covered a portion of the ground between his strawberry rows with cut straw, to keep the weeds down. This proved effectual, but the straw was put on so thickly that the plants started late, and blossomed and ripened fruit 10 days longer than those not thus treated—making a strawberry season of 3½ weeks with the same variety.

**A Western Strawberry Patch.**—S. S. White, Mercer Co., Ill., writes that "on moving West, I was told that Eastern agricultural papers were not suited to that climate, and that I might save the expense of the *American Agriculturist*. I took the paper, however, read it, and acting on its suggestions planted a strawberry bed 4½ rods long, by 2 rods wide, from which I picked last season, 10 bushels of berries, besides what 75 visitors picked and ate. Persons came miles to see the patch. I had to remind them of their unbelief in the *Agriculturist's* teachings, and hope their eyes are opened. I also had fine grapes from cuttings planted since I came here two years ago."

**Shrubs from the Patent Office.**—"S. R." The shrubs you name do not need any especial culture. Myrica Gale will do best in a wet place.

**Sketches of Bee-Houses, Implements, etc.**—"J. F. S.," of St. Louis, and others. We are always glad to receive drawings and descriptions of novel bee-houses, implements for the farm, garden, household, etc., but can not decide whether engravings will be made and published, until we have examined them and formed an opinion of their utility. No charge is made for engravings of unpatented articles, when they are for public use, unless some individual interest is to be subserved, in which case the person to be benefited should justly bear the chief expense. Where the public interest is to be promoted, engravings and descriptions of patented articles are sometimes inserted, though in such cases it is proper that the owners of the patents, who have an individual interest in the matter, should share in the expense. We are not so benevolent as to support a paper at an expense of \$70,000 a year, and let everybody use its column as a free medium of communication with the public. But the first question in all cases, is, will the publication of this or that description benefit our readers?

**Current Wine 28 Years Old.**—A bottle of current wine, made in 1835, was recently presented at the Fruit Growers' Meeting by J. L. Gourgas, of Middlesex Co., Mass., and pronounced very good. Mr. G., stated that the currants were boiled before pressing; the expressed juice was left to ferment in the tubs, then put in wine casks, and one gallon of the best French brandy added to twenty-eight gallons of the currant juice, with sugar enough to make it palatable.

**Live Forever as a Weed.**—"L. D. B.," Plymouth, Conn. Some months ago we asked for information respecting this plant, and learned from one correspondent that hogs would uproot and destroy it. The Live Forever is different from the Houseleek. The latter has a dense cluster of leaves close to the ground, while the Live Forever, though of the same fleshy character, has its leaves along a stem which is a foot or more high.

**The National Almanac.**—In referring to this valuable work, in March, the price was wrongly given at \$1 50, which was considered cheap enough. We are glad to say the price is only \$1 25 in the better binding. We add it to our book-list on page 159.

**The American Farmer and Mechanic.**—Numerous correspondents are informed that we know nothing about this paper, and have seen no number of it since January. Our own legitimate business is all that we can attend to, and we can not devote time to answering inquiries about other papers, or to getting premiums from them which have been promised, and are not forthcoming.

**American Bee Journal.**—J. B. Cripp, Marshall Co., Iowa, and others. The above journal, formerly issued at Philadelphia, has been discontinued, for the present at least. Journals devoted to a single special department of Agriculture or horticulture, have not yet been found self-sustaining.

**A Safe Promise.**—An Iowa subscriber writes, "After trying a week without success, to procure subscribers for the *Agriculturist*, I told five persons I would send them the paper, and if at the end of the year they did not think it worth the money, I would make no charge. In a few days after they received their first number they were so well pleased they all paid up. If all your subscribers would try this plan, they could benefit their neighbors, and increase your circulation with very little trouble." Many others have made the same experiment, and have thus secured valuable premiums.

**Cecropia Cocoon.**—E. S. Holmes, Niagara Co., N. Y. Specimen received, and is doubtless the *Attacus Cecropia*. The caterpillar, when full grown, is about 3 inches long, and the moth spreads its wings nearly 5 inches. The cocoon is a silky material which perhaps might make a strong fabric, if obtainable in quantity.

**Boots and Shoes.**—"Homespun," advises those farmers who wish to reduce the cost of shoeing the family, to buy leather and make the boots and shoes themselves. Any one will be willing to do it after the annoyance he has had with split leather and ripped seams.

**Climate at Puget Sound, W. T.**—At first thought, one would hardly expect to find many readers of an agricultural paper in the newly settled regions on the Pacific Coast. But the enterprising men who go out to clear up land and build themselves homes in the Wilderness, are just the ones who are on the alert for every hint to be derived from a paper devoted to their chosen pursuit. On the morning of the 21st of every month, we make up for the mail a large edition of the *American Agriculturist*, to go out by the California steamer, to be distributed to subscribers scattered all the way from Western Mexico to Washington Territory, north of Oregon—hundreds of copies going to the latter region. A letter before us from J. H. Nagel, dated at Puget Sound, Dec. 19, (lat 42°), describes the season up to that date as similarly mild and spring-like, to what it was on this side of the Rocky Mountains. Cattle were grazing in the fields, and potatoes and turnips were still in the ground unfrozen. Mr. N. says he has been there ten years, and that, except in 1861, he has never seen snow enough for more than one week's sleighing during a Winter. He compares the climate to that of Italy, with the heat of mid-day in Summer tempered by cooling breezes. The mild Winter comes on almost imperceptibly. We suppose this description applies only to places immediately upon the Coast, and under the influence of the Pacific Ocean, which of course, varies but little in temperature, throughout the year.

**Weather Notes.**—W. G. Phelps, Geauga Co., Ohio, and others. It is interesting to see and compare notes from different parts of the country, to notice the variations of temperature, beginning of storms, etc., but of course we have not room to publish many such.

**Spring-Winter in New-Hampshire.**—Sumner C. Hill, in a postscript to a letter dated Conway, N. H., (lat. 44°) March 13th, 1863, says: "Thermometer 18° below zero this A. M.... Snow 3 feet deep."

**Tree Cotton.**—As we have before been rather severe upon a speculation of this kind, some of our old subscribers may be surprised that we publish two advertisements for Tree Cotton seed, (one last month and one now.) We have been at considerable trouble to investigate the matter before admitting the advertisements, and believe the parties are acting in good faith in introducing this variety of cotton as an experiment. We have in one case ascertained that the seed was received precisely in the way the advertiser asserted, and in the other we have seen the cotton before it was ginned. The shape of the bolls is different from ordinary cotton, and the fiber has a different feel. It is yet to be proved by experiment whether it is at all adapted to our climate, but those disposed to try it will doubtless get genuine seed offered by the advertisers.

**Beware of Traveling Tree Peddlers.**—We do not like to quarrel with traveling Tree Sellers, for many of them are upright, honest men, and not a few of them are the very best agents for extending the circulation of the *Agriculturist*; but there is so much swindling by some of this class, that we must caution our readers to exercise special care in dealing with those who are far from home, and not personally known to the purchasers. The most common mode of defrauding their customers is, to get a certificate of agency from some respectable nursery, and do just business enough for that nursery to keep their agency good, and then to take orders and supply them with inferior and untrue trees, picked up here and there at nominal prices. They bluster the purchasers into paying for the trees "to get rid of them," and when after half a dozen years the trees turn out untrue, the "agent" is non-com-at-ibus. The best way is to send directly to some responsible nurseryman; or if any communication be held with the agent, listen to what he has to say, canvass his list and proposals, and when the list of trees is made out, yourself send the order direct to the proprietors of the nursery, with all specifications as to kinds and size of trees, time and mode of delivery, price, etc. If the agent be a recognized one, he will be satisfied with this course, as he will draw the same salary or commission as if he carried in the orders himself.

**Grape Culture, Wines and Wine Making.**—This is the title of a work of over 400 pages, by A. Haraszthy, published by Harper & Bros. The author is a native of a wine-growing country and made a trip to Europe to collect material for this work. The European vine flourishes well in California, and what relates to the culture of the grape is of course adapted to that climate, but the very detailed accounts of the process of wine-making will be valuable everywhere.

**A New Work on Vegetables.**—Crosby & Nichols have just published "The Field and Garden Vegetables of America," by Fearing Burr, Jr. This is rather a descriptive catalogue than a treatise upon the culture of vegetables, and contains much information upon the origin and peculiarities of the different varieties. The author has followed the classification of London, which we do not like, but this is a minor point. The work is beautifully executed, and the engravings being from original drawings by Sprague, are of course good.

**Botanical Works.**—A. Domas, Ill. Gray's Manual is the best work. American Weeds and Useful Plants is fully illustrated. Both are in our Book-List.

**New American Cyclopaedia, Vol. 16.**—This volume completes the great work published by the Appletons. Whoever owns a set, has a valuable library. Among the striking merits of this work is the information it contains about living people, and upon peculiarly American topics. An annual volume, two of which are already issued, will record passing events.

**American Pomological Society's Fruit-Lists.**—Distributed to members only. The terms are \$10 for a life, and \$2 for a biennial membership. Life members will be furnished, as far as possible, with the back volumes. Remittances for membership may be made to Thos. P. James, Esq., Treasurer, Philadelphia, or Hon. Marshall P. Wilder, President, Boston.

**Catalogues.**—Each year shows a great improvement in the catalogues of the various nurserymen and seedsmen. Instead of being a meagre list of articles for sale, many of them contain concise descriptions of fruits and plants, together with full directions for their planting and culture. Some of these are really valuable works of reference. We have accumulated a mass of

these, and intended to notice them in detail, but are prevented by want of space. We thank the contributors, and often in an indirect way benefit them by referring our many inquiring visitors to their pages.

**Messrs. Wilder and Breck.**—The proceedings at the Quarterly Meeting of the Mass. Hort. Society, April 4th, were unusually interesting. By a vote of the Society an account of the proceedings has been furnished us for publication, but we have not space left for a full report. First, an elegant Silver Pitcher or Vase, and a dozen Silver Forks, were presented as a suitable testimonial to the late retiring President of the Society, Hon. Joseph Breck (the well-known author of "Breck's Book of Flowers"). Following this was the presentation to the Society, by C. O. Whitmore Esq., of a Marble Bust of Hon. Marshall P. Wilder, who has for more than thirty years been connected with the Society—eight years as President—and labored unceasingly for the promotion of its interests, and of the horticultural and pomological interests of our country generally. The Bust was received, and resolutions unanimously passed, expressing gratitude to Mr. Whitmore, and highly complimentary to Mr. Wilder. The Bust will be placed in the Society's rooms, to which it will be a most appropriate ornament.

### The Tobacco Essays—Plagiarism—New Award of the Second Prize.

The Committee to whose decision the Tobacco Essays were referred, were intelligent men, and they sought for the Essay which should give them, if they wished to engage in its cultivation, the most plain and complete practical instructions, as called for in the offer of prizes. The decision, published in the last issue of the *Agriculturist*, was made upon this ground, and in good faith, and they supposed that every essay before them came within the conditions, and was written "from practical experience or observation." After the book was stereotyped and printed, the Committee learned, to their surprise and regret, that they were imposed upon by Mr. A. B. Foster, of Crawford Co., Ill., who copied almost word for word an essay by W. W. W. Bowie, of Prince George's Co., Md., which was printed in the Agricultural Report of the Patent Office for 1849-'50. This essay received a prize of \$30, which was awarded to it by a Committee of Maryland Agriculturists. While the Committee feel gratified that their decision should accord with that of these distinguished gentlemen, they exceedingly regret the unintentional injustice done to Mr. Bowie. The only amends they can make are this public acknowledgment, and to put his name to the Essay should another edition of the book be called for. The second prize of \$10 will belong to Mr. Christian Schnelder, of Madison Co., Ill. As to Mr. Foster, we leave him to reflect that he has done a very mean thing, and to the chagrin this exposure must bring him. Fortunately the discovery was made before forwarding the prize-money.

### Judges for the Strawberry Exhibition.

The following gentlemen have been chosen by the Fruit Growers' Society a Committee of Judges on the forthcoming Strawberry Exhibition, announced elsewhere in this paper, viz.: Mr. Charles Downing of Newburg, N. Y.; Mr. Samuel B. Parsons of Flushing, N. Y.; Mr. Peter B. Mead, Editor of the Horticulturist, N. Y.; Prof. Geo. W. Huntsman of the Free Academy, N. Y.; Mr. Stephen D. Pardee of New-Haven, Conn.; Mr. John J. Thomas of Union Springs, N. Y., (Horticultural Editor of the Country Gentleman, Albany); and Mr. Isaac C. Winans of Newark, N. J. The first five named gentlemen have signified their acceptance; the last two have not yet been heard from, but will doubtless attend. This is a very excellent committee, all of whom are well known as practical and skillful judges of fruits, while not one of them has a special or personal interest in the propagation of any variety of strawberries. Mr. Winans was formerly largely engaged in marketing strawberries in New-York, and his practical experience will be specially valuable in this department of the exhibition.

### The Michigan Agricultural College.

We are glad to learn that this, the pioneer institution of its kind in the country, is still in a flourishing condition. Like every new enterprise, it has had to contend against ignorance and prejudice. The Legislature of the State has now placed it in a condition to sustain itself until the lands granted by the General Government can be made available. The State Board of Agriculture, composed of some of the most intelligent farmers of the State, have control of its affairs. Prof. T. C. Abbot, is President of the Institution, and there is an able corps of Professors, most of whom are personally known to us.

To the farmer's son this college offers especial advantages, as he is enabled by means of his labor to defray a good share of the expenses of his education, and is brought in contact with those only who consider labor honorable. We know that the studies relating to agriculture are taught more fully than they are in most colleges and scientific schools, while the course in the ordinary and higher branches of English education is very complete. If the farmers of Michigan properly appreciated the institution it would be filled to its utmost capacity, but at present there is room for a few from other States, who are admitted at a yearly charge of \$20 for tuition, which is free to residents of the State. Catalogues and Circulars may be had by applying to Pres. T. C. Abbot, at Lansing.

### Agricultural Department at Washington.

It gives us pleasure to state that there are strong indications of a desire on the part of the Commissioner and his associates to make this Department what it should be,—a real benefit to the agriculture of the country. A very capable man, Mr. Wm. Saunders, is placed in charge of the propagating garden. Prof. Townsend Glover has been selected as Entomologist to the Department—an appointment eminently fit to be made, and we are especially gratified at this, as Prof. G. was very shabbily treated by the old Agricultural Bureau of the Patent Office. We have no doubt, from Prof. Glover's ability and enthusiasm, that his labors will do much to enlighten the farmers concerning their great enemies, the insects. Another favorable indication is the determination to stop the promiscuous scattering of seeds, and to distribute them hereafter through organized agricultural societies and clubs, where they will be carefully tested, and the results made known, which is the course we have urged for a long time past. The Commissioner requests us to state that he desires all such organizations now existing, or which may be formed, to at once forward to the Department the name of its President and Secretary, in order that they may be supplied with seeds and agricultural reports. Things seem to be taking a proper shape, and we have only to ask the Commissioner that, while he is exercising proper care in the distribution of seeds, he will improve still more upon the old ways of the Patent Office, and send out such seeds, only, as are new and worthy of trial. We decidedly object to furnishing, at the expense of the people, such as are to be obtained at the seed stores. Thus, among the seeds now being sent out, several are quite common; some of them we have scattered broadcast for years past, in our free distribution.

### Strawberry Exhibition.

AT THE  
Office of the American Agriculturist.

The Proprietor of the *Agriculturist* invites Strawberry Growers, of this vicinity and elsewhere, to make an exhibition of their choice fruit on Thursday and Friday, June 18th and 19th,\* at the American Agriculturist Office; and to give zest to the exhibition, he offers the following

#### PRIZES:

A—For best 25 approved varieties (one quart each).....	\$7
B—Second prize.....	5
C—Third prize.....	3
D—For best dish of market berries (two quarts of one variety.—It will be very desirable to show plants with fruit in addition).....	3
E—For second and third best do. do. (\$2, \$1).....	\$1
F—For largest three berries of one variety, (weight and size both being considered).....	2
G—For best New Seedling not before exhibited.....	5
H—For Second Best Seedling not before exhibited.....	2
I—For best flavored Strawberries (one quart).....	2
J—For best quart of White Strawberries.....	2
K—For best quart Everbearing.....	2
L—For best quart of Bonte St. Julien.....	1
M—For best quart of La Constante.....	1
N—For best pint of Princesse Frederick William.....	1
O—For best pint of Empress Eugenie.....	1
P—For best pint of Marguerite.....	1
Q—For best quart Fillmore.....	1
R—For best quart Cutter.....	1
S—For best quart of Triomphe de Gand.....	1
T—For best quart Wilson's Albany.....	1
U—For best quart Hooker's Seedling.....	1
V—For best quart Hovey's Seedling.....	1
W—For best quart Victoria.....	1
X—For best quart Jenny Lind.....	1
Y—For best quart Vicomtesse Hericart deThury.....	1

No sample can compete for more than one prize.

The berries to come in competition for the premiums must be upon the tables as early as 11 A. M. on Thursday June 18th, and each specimen must be correctly labeled. The Awarding Committee will attend to their duties at 12 M.—The exhibition will not open to the public until 2 P. M. When the premiums are awarded, the names, residence, and places of business of the exhibitors will be put upon the specimens, and the prize samples designated. No Fruit exhibited will be removed before Friday evening without special permit.

\* Should any peculiarity of the season require a change to be made in the date of holding the exhibition, notice will be given in the *American Agriculturist* for June.



### Care of Sheep and Lambs.

Something more than high prices for wool and mutton is needed to make sheep-raising profitable. They must be well cared for, particularly at the lambing season now at hand. If the ewes have been judiciously fed, neither stinted nor pampered, the labors of the keeper will be greatly lightened. The lambs will come into the world, vigorous and active, requiring little more than the care afforded by the ewe. A few points will always need attention. Experience is the best teacher, but many have their first flock of ewes to manage this Spring, which have been bought under the stimulus of the great rise in value, and to such, the following practical suggestions will be timely. From the first, pains should be taken to render the flock tractable. A few handfuls of oats or corn scattered among them on each visit, will make the master always welcome. In this way a flock may soon learn to be led to any desired place. Pregnant ewes and their progeny are often injured by their efforts to escape when being driven to or from an enclosure. If the weather be clear and mild, it is preferable to have lambs dropped in the pasture. The field for their accommodation should be dry, and free from ditches or sunken spots, where a heavy ewe might be "cast." But during cold nights and in rainy weather, shelter is essential. A few hours exposure at such times may destroy many new born lambs. Make the shed for ewes roomy, and allow plenty of ventilation. Where the flock is large, the shed should be divided into temporary pens to accommodate not more than twenty or thirty head. In the moving about and confusion of a larger number, the young mother may be crowded away from her offspring, and the lamb be unable to suckle. Keep the pens clean, but do not use too much litter, which might entangle the new comers and prevent their rising. See that all filth is removed from about the udders of the ewes: it is also advisable to clip away any thick growth of wool which might impede the lamb in nursing. The first great point to gain is that the young should early get a good supply of food from the dam. It needs this both for nourishment, and for the medicinal effect which the first drawn milk has on the digestive organs. There should be no haste to interfere with the process of parturition. Several hours may sometimes elapse before it is completed, but unless the ewe shows signs of extreme prostration, nature will generally afford relief. If mechanical assistance be found necessary, let it be of the gentlest character, and only in conjunction with the efforts of the animal. If a ewe refuse to own her lamb, confine them together apart from the flock, and frequently give the lamb an opportunity to suckle by holding the ewe. She will usually acknowledge her parentage after a few such trials. A good ewe whose lambs have died should be furnished with one from a twin pair. She will allow its approaches more readily if the skin of her own

offspring be sewed around the body of the stranger. If no lamb be given her, the milk should be drawn from her bag once or twice at least, to prevent danger of inflammation.

Where young lambs are found astray without a natural protector in the flock, if no foster



mother can be provided, they may be given to the children to bring up as cossets. Feed them with warm fresh cow's milk. They will readily learn to drink it by giving them a quill with a strip of cloth tied around it to suck through at first. Sheep reared in this way at the house are likely to have extra care, and they usually bring an extra price in market, besides giving much pleasure to the young members of the family while rearing them. Abundant nourishment should be provided for lambs in the flock, by giving good pastures to the ewes. If grass be short, a daily small allowance of oats or corn will pay both in the lambs and the fleece. \*

*For the American Agriculturist.*

### How To Obtain a Good Stock of Sheep.

The best variety of sheep for profit will depend upon the location and circumstances of the breeder. Those contiguous to a good market will doubtless rightly prefer the Cotswold, Leicester, Downs, or some other of the mutton sheep. For those who make the fleece the primary object, my preferences are in favor of the Spanish Merino. But to obtain these of undisputed purity of blood requires an expenditure which very few are able to meet. The writer inspected a pen of bucks and one of ewes at the State Fair of Ohio, last Fall, the property of George Campbell Esq., of Vermont. His buck was held at \$3000, and the ewes at \$100 per head. These were undoubtedly pure bred Spanish sheep. Those having the means and willing to pay such prices, will save much time by commencing a flock exclusively with

high-bred animals. To others whose pockets admonish frugality, I would suggest the following method. Make a judicious selection of ewes from such as can be found in almost every neighborhood at moderate prices. Then procure a stout, well built, oily, and heavy fleeced Spanish buck. If the ewes are light fleeced, and have dry wool, this defect must be counterbalanced by using a buck possessing the opposite extreme. Even the first cross from a buck of this description produces an excellent sheep both for wool and the shambles. It is true, the wool will lack evenness over the body, but it will be essentially thickened, it is made to extend over the belly, the fleece is increased in weight, the sheep is rendered more compact, stocky, and nearer the ground, and the improvement is marked. The flock-master has now found the key which opens the door, and he is invited onward in the highway of future success. When ewes of this cross mature, another buck must be procured, as with intelligent flock-masters close in-and-in breeding is inadmissible. If practicable, let this second buck be the superior of his predecessor in all good points; and at the same time reject all ewes which inherit any serious defect. The flock-master must bear in mind that to grade up a flock by this method to a high standard of excellence, is a work of time; and patience must have its perfect work. But

good bucks must be obtained, and this will necessarily involve some expense. Fancy bucks and fancy prices are for fancy breeders and plethoric pockets; let them exclusively enjoy them. I know that good bucks can be had at from \$50 to \$100, and prices within this range should be satisfactory to both seller and buyer. But will this system of grading up a flock from mongrel ewes produce a flock of pure blooded Merino sheep? There may be incompatibility in varieties arising from physiological differences, which time and amalgamation could hardly neutralize and overcome, but in skillful hands, every succeeding cross encourages the hope that a sheep possessing all the points of a superior animal will be attained. This point I think is fully illustrated and realized by the improvements which have been accomplished in our own country, by discriminating breeders during the last 30 or 40 years. Our present American Merinos are in every respect superior animals to those imported from Spain by Col. Humphreys and Consul Jarvis, and it is equally obvious the excellences of our present improved stock are due to the Spanish blood, and we must look to this as the base or starting point of all future improvement. But in grading up a flock of sheep a few cardinal points must ever be kept in mind. 'Like begets like.' If the parents approximate perfection in any one point, the offspring will generally inherit that good point, but if the parents are both defective in the same point, the offspring is likely to be more so than either of its parents. The confluence of two muddy rivulets will vitiate still more the purity of the stream. The whole secret of grading up a

flock to a high standard of excellence is a system of counterbalancing, that is: breeding out the objectionable points of one parent by the excellences of the other, and thus stamping upon the offspring the type and characteristics we seek to obtain and perpetuate. G.

Moore's Salt Works, O., March 1863.

### Kicking Cows.

"Maryland," in a note to the *American Agriculturist*, says he has always cured kicking cows, by buckling a leather strap on both hind legs, below the joint. They soon give up trying. We long since learned, by experience, that this is not so easy a matter. Unless the feet are strapped close together, the cow will slip one of them out; while if they are drawn thus together, the animal will be apt to throw herself down. If a strap is used at all, it should be a short one, and have a double buckle, so that one end can be fastened to each leg, and leave a little space between the legs. Even then a cow will generally worry and fret, and try to run, when she finds her feet entangled or confined. Kindness, and moistening the teats with milk or grease, if sore, is usually the best course. An expert milkman can usually prevent the forward movement of the leg, by grasping the teat tightly, and resting the arm against the leg. Most cows will give up kicking if the milker patiently, but firmly and in good temper, persists in simply warding their legs off with his arm. We have cured a good many kicking cows, most of them by the above treatment. Some confirmed kickers we have broken by the following method: A long narrow pen is made just wide enough at one end for the head, and spreading out at the other end to give room to her hips, and for the milker to sit conveniently by her side. A short stout leather whip (a "black snake," as it is generally called) is provided, and with this one or more heavy blows are inflicted every time a foot is raised. When the animal learns that every effort to kick is sure to bring punishment, she will usually give it up. In nine cases out of ten, cows are spoiled by bad temper and irregularity in their treatment. The cow kicks and the milker says so-o-o-o! This is perhaps repeated half-a-dozen times. The seventh time she chances to hit the pail or the milker, and then he scolds furiously, and probably he strikes her. The next kicks are passed over until some damage is done, when the angry scolding is repeated. We advise the use of the whip or other punishment only as a last resort; but if resorted to, let there be coolness and uniformity. If every kick brings back a blow, the cow will generally learn that much, and cease to kick.

### Civilization and Animals.

Mr. Holley, of Hull Co., Nebraska Territory, writes to the *Agriculturist* that, during the first years of his residence in that Territory, he industriously killed off the wolves and foxes—in one year destroying over 170. Latterly he finds that the hares and rabbits have increased to such an extent as to prove very troublesome to his young trees—having, in the absence of their natural enemies, multiplied without hindrance. The efforts of civilization are constantly tending to destroy the natural condition of things, wherein one tribe of animals holds the other in check, so that neither predominates. By destroying the natural food of animals, they prey upon the crops. We even change the climate by

clearing away forests to make room for crops. One generation bares the earth of forests, and the next engages in planting trees.—We do not mean to recommend the preservation of wolves and foxes to keep the rabbits and hares in check, but allude to this case for the purpose of calling attention to another in which the natural balance is destroyed, to the serious injury of the farmer and gardener—viz.: the promiscuous destruction of the birds. In the older portions of the country especially, the insect-eating birds are disappearing, while the insects, their natural food, are increasing with alarming rapidity. Almost every village contains a number of over-grown boys, who, "old enough, big enough (and ought) to know better," go about with guns, and, under the pretence of hunting, shoot at everything that has feathers. We have no patience with these promiscuous bird killers, and when we see one of the lazy louts banging away at everything from a sparrow up to a robin, we think that the bird is the nobler animal of the two, for that is fulfilling the object of its creation, while the featherless biped is destroying the farmers' friends. We have laws that certain "game birds" shall be shot only at particular seasons. Why not have a law that other birds shall not be shot at all? At all events let there be such a law of public opinion, that these wanton destroyers of useful birds shall be considered in the same light with fruit thieves and other pests.

For the *American Agriculturist*.

### Raising Turkeys—Making Grasshoppers Profitable.

Grasshoppers get their living on the farm, and for one I am not willing to board them without some return. It is my practice to send in bills against them daily (turkeys' bills), and I usually commence making them out this month. For this purpose the best two-year-old cock and two or three hens of the same age are selected. Yearling turkeys will breed, but their chicks are usually feeble, as this bird does not attain maturity until between two and three years old. Turkeys are very shy about their domestic arrangements. Their nests are usually secreted in the most out-of-the-way places, and apart from any other fowls. They should be indulged in this. I prepare nesting places for them by knocking out the heads of old barrels, and placing them in a quiet fence corner among brush or weeds. They will take to the nest quicker, if a few imitation eggs are placed there. As the eggs are laid day by day, they are removed to a cool dry place, and turned every day until the hen begins to set. The female can cover from fifteen to twenty eggs. Any surplus ones are placed under a hen at the same time, and when the brood come out they are all given to the old turkey. Persons having no old turkeys can commence by procuring eggs, and giving them entirely to a hen, but the natural mother is best. The greatest care must be taken to keep young turkeys from the wet. A single run in the grass before the dew is off in the morning may kill off a number. I make a pen about twelve feet square and eighteen inches high, to confine the young. The mother will not wander far from them. Hard boiled eggs chopped fine, and sour milk-curd are the best feed for the first week. Afterward, millet and Indian corn cracked fine are given until they are able to shift for themselves. The pen is also kept supplied with fresh cut grass, young leaves, and other green food. Loppered milk is excellent at all times,

and I think for all kinds of poultry. They love it and thrive on it. The turkeys soon learn to range for food, and no bird is more active in pursuit of grasshoppers and other insects. I think it would pay well to raise them for this purpose. To keep them from running entirely wild, and roosting away from the premises, I have roosting poles for them near the barn where they are fed every night. I have little trouble in fattening them in the Fall, as by good feeding they are kept plump all Summer, and when Thanksgiving comes and accounts are balanced, I find a large credit to their account, particularly when I reckon the large collections they have made among the grasshoppers.

Rensselaer Co., N. Y.

WALTER.

### Tim Bunker on the Philosophy of Hen-Roosts.

"What upon airth d'ye 'spose is the matter with my hens?" asked Jake Frink one cold morning in March, with a face longer than usual. "Ye see, Squire, I never had such bad luck with the critters, afore, in all my life. I guess I've lost half on 'em neow sartain, and lots of what's left is limpin' around as ef they'd got some kind of disease. Shouldn't wonder if some plaguey boy had pizened the critters?"

"I guess you haven't fed 'em enough," I remarked. "Fed em!" exclaimed Jake. "Them birds have eat their weight in corn every week, I'll bet a shad, to say nothing of potatoes, beef scraps, and swill in general. You never see such eaters. They have hung around the pigs' trough all Winter, and they've pitched into the swill so ravenous, the pigs have had a poor chance; you can count every rib in their bodies. They're enough to breed a famine."

"Well, may be they have not had enough variety of food," I suggested.

"No you don't," responded Jake with emphasis. "Nothin' comes amiss to them critters. Ye see I sent and got beef scraps for 'em because they said it was cheaper than corn, and the tallest kind of fodder to make 'em lay. And I mixt up red pepper with the dough, and have fed clams, and mummy-changs, and they made no bones swallowin' of 'em, and stood with their mouths gapin' for more. I du believe they would have eaten raw alligator if I had only had it for 'em. And then they had a little of every thing that was eaten in the family, besides a cow that died winterin'. I allers have bad luck on winterin' cows. That ain't nothin' new. But my hens never died so afore, and they never had so much to eat."

"Well isn't there something wrong in the roosts?" I inquired.

"Not a bit of it. I had a grand fuss, and clearin' out last Fall, on purpose to know that every thing was right. Ye see, Polly took a notion to have the *American Agriculturist* last year, and she read about having the roosts white-washed, and clean poles for 'em to sit on, and clean floors for the manure, and I didn't hear the last on't till I had a general overhaulin'. From the day that paper come into the house, that woman was took with the hen fever, and she was dingin' at me from mornin' till night about the critters. It was, Jacob du this, and Jacob du that. I undertook to laff her out on't, but I found it was no go. I hinted to her that I didn't see much use in cleaning up the floor, when the critters were sure to nasty it agin' as soon as they got on to the roost. She said the paper insisted on clean roosts, and you would 've thought she was quotin' scripture.



Says she, 'Jacob, 'spose I should say it was no use to clean up the kitchen, because you come in from the cow yard twice a day, and sometimes more, and dirty it all up! I have followed you with a broom and a mop for thirty years, and that roost is gwine to be cleaned, if I do it myself.' Well, ye see, there want no more to be said arter that. I got a lot of new poles for 'em to sit on, white-washed top and bottom, and made it look like a parlor."

"I guess your poles is the trouble," I said. "That aint possible, said Jake, for I made the poles small on purpose so they could hold on."

"There is where you made your mistake. You see the perch wants to be so large that the hen won't have to hold on. The hen is a philosopher, and knows more about taking care of herself than Jake Frink, any day. She belongs to a warm country, and her feet are the most susceptible to the cold of any part of the body, and most likely to be damaged by the frost. You will see her standing on one foot in cold weather, with the other drawn up among the feathers getting warm. After a little while, she will change position, and warm the other foot. If it were not for this process of warming, both feet would soon be frozen, and she would grow lame and die. If hens have large perches, say four or five inches in diameter, their toes are completely covered with the feathers as they roost at night, and they sleep comfortably and securely. If the perches are small, the toes are left out, and freeze in very cold weather. This makes them lame, and of course affects the general health, as a frozen limb would in larger animals. Sometimes the toe sloughs off, and if the freezing process is not repeated, the bird recovers. But if Jake Frink is the owner of the birds and does not know what the matter is, the toes are repeatedly frozen, and the hens die in a very strange and mysterious manner!"

I left Jake standing with his mouth open, as this bit of philosophy got into his head. It was so plain that he could not help seeing it. But wiser men than he are every day violating the plainest principles of common sense in their management of domestic animals. Their bodies are as much subject to law as our own, and if we do not regard these laws in providing for them, health is impaired, and oftentimes life is destroyed. There is as much philosophy in hen-roosts as there is in human dwellings, and we must know something about the habits of hens before we can suitably provide for their health.

Not long ago I was asked to come over and see Mr. Spooner, our minister. I began to think of my transgressions at once, and tried to recall what scandal I had uttered that I should be sent for. I was put at my ease when I found out that it was my profession and not his that was to be called into service. I may as well say that I have considerable of this work to do around Hookertown, and I don't see why it is not just as honorable to doctor hens as it is to doctor men. The only fault I have to find is, that folks don't send for me until it is entirely too late.

Mr. Spooner complained that his hens died strangely. He took the best care of them, gave them a variety of food, grain and meat, and pounded oyster shells for them, and bones; but they would droop, run at the mouth, swell in the head, and die. Some times they dropped dead from the roost. I suspected in a minute what was the matter, and led the way to the hennery, where I found a large quantity of manure sprinkled over with lime. The smell of ammonia was about as pungent as a hartshorn bottle. He had heard it said that lime was good

to cleanse roosts, and had used it without stint. In such an atmosphere, in a close warm room, the hens died of course. I ordered cleansing and a layer of dry muck to be changed once a month. Since then the minister has had plenty of eggs of his own raising. I could afford to throw in the fees, for before my visit, Mrs. Bunker's egg basket was often emptied at the parsonage, and no questions asked; since then, it has been like carrying coals to Newcastle.

Hookertown, Yours to command,  
March 20th, 1863. TIMOTHY BUNKER ESQ.

For the American Agriculturist.

### Care of Fowls.

Nearly two years experience with about 34 hens, gives me, "in as great proportion," the same advantages in eggs and chickens as Mr. Thompson obtained from 75, as stated in the *March Agriculturist* (page 75). There is, however, this in my favor, that during the whole time only three of my hens died. Warmth, ventilation and cleanliness, with frequent greasing of the roosts, are pretty sure safeguards against vermin.

My poultry house is thoroughly cleaned every week, well swept, and fresh loam scattered over the floor. Sometimes, if the smell be offensive, I scatter a few handfuls of lime dust (which is always on hand) under the roosts, and sprinkle with a watering pot; this is a great purifier. [Plaster would be better.—Ed.] The droppings saved during the year with the loam added will average from twelve to fifteen barrels.

A word about feeding. I am of opinion it is great economy to boil the meal. My plan is, to boil, about once a fortnight, a half bushel of cracked corn, stirring for an hour. At the same time, boil in another kettle a half bushel of small potatoes; when soft, pour off the water, mash, and mix thoroughly with the meal, then pour the whole into a tub or barrel. It keeps sweet, and cuts like cold mush. I give them plenty of this, varied now and then with a few handfuls of grain, cabbage leaves, oyster shells, and bones broken small. There has been no lack of eggs during all the Winter. W. WILSON.

Suffolk Co., N. Y.

For the American Agriculturist.

### Cost of Keeping Poultry.

The appearance of my report on poultry in the March No. of the *Agriculturist*, page 75, has led to many inquiries as to cost of keeping. The answer is: one peck of corn per day, for a hundred head, in Winter; in Summer less will do. Corn being the staple food for poultry, the calculation is based on its cost. I prefer and use wheat screenings. A variety of grains is desirable; no damaged grains should be fed. The cheapest food is corn and oats ground together in equal parts. Two pounds of this stirred into one gallon of boiling water makes ten lbs. of stiff food. It may be fed warm, not hot.

Staten Island, N. Y.

J. C. THOMPSON.

### Desirable Breeds of Fowls.

John E. Abbott, Kennebec Co., Me., writes concerning different breeds of fowls: "Common hens will yield good profit, but more can be obtained from many of the improved varieties. In deciding what breed is best, it must be taken into account whether eggs or chickens are most desired. 'Every-day layers,' as they are called, are commonly considered to be superior to others in laying qualities. A few of the best of these I will briefly describe. *Black Spanish*.

—Rather above the medium size. Their combs are single and very large. The hen's comb falls over on one side. Few fowls surpass them in the number, or size of the eggs. Their chickens are hardy. *Leghorns*.—These fowls bear a strong resemblance to the Spanish, except in color. Those who have kept them, think that they are better layers. In a report which was published in the Transactions of the Middlesex Co. (Mass.) Agricultural Society, for 1861, Mr. I. H. Felch, of Natick, stated that 'for six months, the White Leghorns averaged 95 eggs per hen; the Blue Leghorns, 80; the Brahmas, 77; and the Black Spanish, 74. These two breeds, Leghorn and Spanish, seldom set; so that it will be necessary to keep some other variety for raising chickens.

*Dorkings*.—For rich, juicy flesh, the Dorkings are generally placed at the head of the list. They are not hardy, and are only fair layers. These two things will prevent their being in great request. *Brahma Pootras*.—Full grown Brahmas will weigh from 18 to 23 pounds a pair. Though not equal to the Dorkings for the table, their flesh is of excellent quality. As layers, they are highly valued. They commence laying when young—usually at the age of six months. The only fowls that come up to them in size, within my knowledge, are the Chittagongs. There appears to be but a slight difference between these and the Brahmas. Anyone of these different breeds, excepting perhaps the Dorking, will almost invariably give better satisfaction than common fowls."

### Bee Keeping in Minnesota.

Samuel Bates, Winona Co., Minn., sends to the *Agriculturist* a very favorable account of success in bee keeping in that locality. He selected a site with reference to the business in a valley adjoining the Mississippi River, and where plenty of basswood trees were growing on the adjacent islands in the stream. The bees find abundant pasturage, and the quality of honey is superior. Early swarms frequently make a hundred pounds per hive. Swarms coming as late as the middle of August, which would be deemed worthless at the East, will store from twenty-five to forty lbs. of honey.

Mr. Bates wintered his bees in a house, 25 feet long, 5 feet wide, 6 feet high, covered with matched boards, and well ventilated at top and bottom. It is entered by a door at the end. The hives are set in tiers one above the other on bars extending lengthwise of the house. Each hive is raised a short distance from the bottom board, to allow ventilation. As warm weather approaches and the bees become uneasy, the door of the house is opened at night and shut early in the morning, to keep them as cool as possible until a favorable day comes for setting them out. If there be snow on the ground, straw is scattered about the hives for them to alight on. Mr. B. thinks some winter shelter is indispensable to successful bee-keeping in that region, where the cold is often intense. Many have failed in the attempt to keep them the year round in the open air.

THE AGE OF HORSES can not always be known by their teeth. "Ebersol," writing from Ottawa, Ill., says he saw some neighbors at work upon an old horse, "making him over." Having cast the animal, they filed his teeth and brought them to resemble those of a young horse. He was afterward sold at a good figure in consideration of his youth! The imposition is not new! Sharpers have long practised it.



**Cheap Home-Made Bag Holder.**

A subscriber to the *Agriculturist* whose communication and address have been mislaid, sent a sketch and description from which the above engraving is made. It represents a cheap and apparently very convenient bag holder. To make it, take a two-inch plank block, 12x18 inches; bevel the sides half an inch, and with strong screws fasten to it two flexible uprights of half inch board, each 6 to 8 inches wide, as shown in the engraving. To use it, the top of the bag is folded over about three inches, and placed over one upright, the two are sprung together so that the fold may be placed over the other one, and it is thus held distended. The uprights are long enough to allow the bottom of the bag to rest upon the block. Where the bags are of uniform length, this will answer every purpose. We would suggest that to accommodate bags of different lengths, two short uprights might both be fastened to the block, and then two flexible strips be fixed to slide up and down in staples fastened to the outside of the stationary uprights.

#### Progress of Flax Cotton Manufacture.

Some progress has been made towards securing the desirable end of being able to work flax upon cotton spinning machinery, as is seen in the establishment of several factories. As yet, however, the enterprise cannot be deemed wholly successful. In consideration of the importance of this industrial interest, the Legislature of New-York, on the 22d of April, 1863, appropriated \$2000 bounty for "machinery to test the experiment of manufacturing flax cotton, to be expended under the direction of the State Agricultural Society." The Society has recently rendered a report of their proceedings in the matter. The investigation was made by a committee consisting of Hon. Ezra Cornell, Messrs. Samuel Campbell of New York mills, A. Wild and B. P. Johnson of Albany and J. S. Gould of Hudson. Only two competitors for the State bounty appeared, viz.: the Lockport, N. Y., Flax Cotton Company, and Mr. C. Beach, of Penn Yan, N. Y. After examining their processes, the committee submitted the following resolutions, which were adopted:

*Resolved*, That in the judgment of this Society no such advance in the perfection of machinery to test the experiment of manufacturing flax cotton has been made as to warrant the Society in awarding any portion of the sum appropriated by the Legislature, at the present time.

*Resolved*, That the Society will keep the execution of the trust reposed in them by the Legislature for the present in abeyance, under the hope that such valuable improvements may be effected in the coming year, as may justify the Society in awarding the whole or some portion of this amount to any such successful inventions.

*Resolved*, That the committee be requested to continue their investigation during the year, at such time and in such manner as may, on consultation with the President and Secretary of the Society be deemed most advisable.

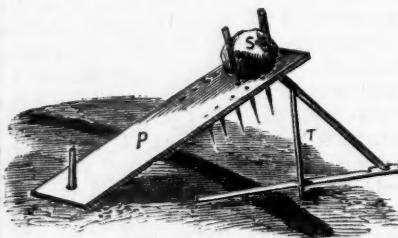
*Resolved*, That the entire sum of two thousand dollars, appropriated by the State as aforesaid, now in the hands of the Treasurer of the Society, be deposited by him in one of the trust companies of the city of New York, where it may draw interest until it shall be required for the purpose designated by the Legislature.

*Resolved*, That the proceedings of the Society be presented to the Honorable Legislature."  
(Signed) B. P. JOHNSON, Secretary.

The committee say in addition: "We are fully convinced that the reduction of flax fiber to flax cotton is practicable. Already great strides towards the accomplishment of this have been made, as we think, in the right direction. We feel confident that nothing is needed but intelligent and persevering efforts, to achieve a triumphant success. We deem it desirable in the highest degree that the Legislature should continue to offer a reward with a view of stimulating and encouraging the activity and ingenuity of inventors." The continued demand for cotton substitutes is inspiring inventors in every direction, and it is to be hoped that ere long their efforts will furnish us again with some material for clothing, produced at the North, less costly than cotton at 40 cents per yard.

#### An Effective Mole Trap.

If the moles would confine their sapping and mining operations to the fields, they might be spared in consideration of their usefulness in destroying grubs and other troublesome insects. But we have learned by costly experience that in the garden and ornamental grounds they may become an intolerable nuisance. Last year we published in the *Agriculturist*, page 141 (May No.) the best of over twenty designs for mole traps sent by different parties. A correspondent writes that upon attempting to construct a similar one, not being much of a carpenter, he found it too difficult for him. He finally contrived the simple modification shown below,

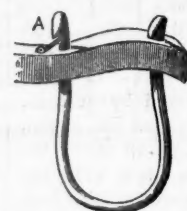


and found it to work well. His trap was sprung fourteen times, and he secured fourteen moles. In the engraving, the plank (P), 8 to 12 feet long, has a hole in the lower end which passes over a pin driven into the ground, to hold it in place. Three or more stout wires, very sharp, are inserted an inch apart on each side of the end of the plank. The pairs of wires should be about 9 inches apart. A stone or other weight, S, is added to bring it down forcibly. A common figure 4 (T) is placed under the plank, with the trigger lying across the mole track. When setting it, the track is flattened with the foot, where the trigger is to rest upon it. The plank

should have a fall of 12 to 15 inches. The mole in passing, in either direction lifts the trodden ground and the trigger resting upon it, and is instantly pierced by the descending points.

#### Another Improved Bow-Pin.

A subscriber to the *American Agriculturist* sends the accompanying design for a bow pin, which he considers an improvement on the one shown in Vol. XXI, page 300 (Oct. 1862.) It consists of a common wrought iron hinge, with one side fastened to the yoke, so that the other part will rest over about one third of the hole through which the bow passes. A tapering notch is cut in the side of the bow, as shown in the engraving. This arrangement allows the



bow to pass upward, lifting the loose part of the hinge; on its return, the hinge catches in the notch, and holds the bow fast. It is very convenient for yoking shy cattle, which will sometimes start while the pin is being inserted. By having the pin thus fastened to the yoke, there is no danger of its being lost, a decided advantage.

#### Hints on Raising Indian Corn.

In the cultivation of corn there is no stereotyped method, absolutely better than others, for every time and place. What may be best in the garden, may not be required in the field. What answers well in the small fields of New England, may not be needful in the thousand-acre lots of the West. Northern modes may not be exactly suited to the South. One can not and need not manure as highly at the West as at the East. Owing to the high price of labor at the West, one must use more horse power and less hand-labor than at the East. Yet some things are the same everywhere. Everywhere, corn is a rank feeder, and wants an abundance of food. Where the land is in a state to admit of it, the roots will run from three to five feet in quest of nourishment. Hence the need of good land and good tillage. This tillage should mostly precede the planting of the corn, for the too frequent disturbance of the ground after the roots have got established in it, breaks the surface roots, and seriously injures the plants.

As to the best manures for corn, that from the barn yard stands first. By this we mean not only the simple excrements of all kinds of stock, for these alone are not enough. The quantity may be doubled, and the quality hardly diminished, by using absorbents to soak up and save the liquid parts and the gases of the pure dung. What these absorbents are, we have often mentioned, such as muck, peat, sods, straw, tan-bark, leaves, saw-dust, etc. Yet sometimes, the dung heap and compost give out before the crops are all fed. In such cases, the farmer must use with discretion such fertilizers as gypsum, ashes, poudrette, guano, bone-dust, dissolved bones, etc. Let him be specially careful in the use of guano, hen-dung and night soil, and other concentrated manure, or he will spoil his whole crop. They need to be mixed with several times their own bulk of soil before applying them near the seeds or roots of plants.

In preparing the ground, much pains should be taken to plow well, and to mix the manure thoroughly by careful harrowing. It is surpris-



ing what a difference this makes in the rapid and healthy growth of the stalks, their exemption from the effects of drouth, and the plumpness of the ears. It saves a great deal of after-tillage, and prevents much anxiety as to the success of the crop. If the land be subsoiled, more of the roots will strike downward, and fewer will be broken and injured by the cultivator and hoe.

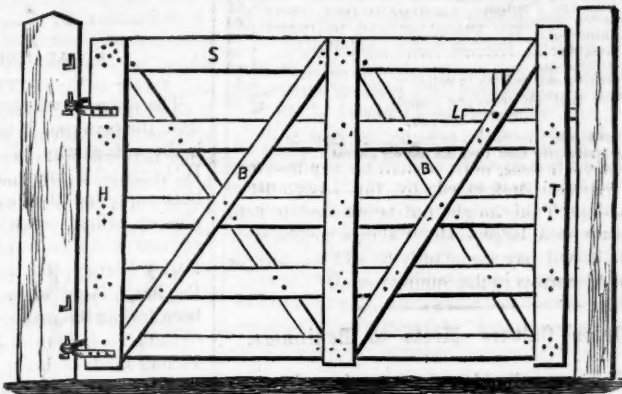
Corn in drills three to four feet apart, and the stalks 8 to 12 inches apart in the row, will give the best yield to the acre; but where land is cheaper than labor, it is usually more profitable to plant in hills, the rows running both ways, so that the plow or cultivator passing in both directions will do most of the work of tillage. The hill system lets warmth in on all sides, which is advantageous, especially on cold, heavy soil, or in a cool season. Corn is a sun plant and prospers best under warmth. The drill system prevents the stalks from crowding and shading each other. If planted in hills, the seed should be dropped four to six inches apart, so that the stalks and leaves will not interfere. The distance apart of hills, or drills, and of the individual stalks, depends both upon the strength and richness of the soil, and the variety in size of the corn. A good soil will support a nearer growth without depriving the roots of adequate nourishment. For the smaller varieties of corn, those growing only 4½ to 6½ feet high, three feet apart for rows or drills is enough. The taller, 10 feet high varieties, require 3½ to 4 feet rows or drills. Usually 3½ to 4 feet is preferable to 3 feet, for medium soils, and for good sized field varieties. Four stalks are as many as can grow in a hill. Three good stalks will yield more grain than five poor crowded ones.

The best varieties of corn for any locality are best learned from the general experience of a neighborhood, though it is well to try small plots of new kinds for experiment. Let it be remembered that corn is easily spoiled for seed by dampness or heating in the shock or crib. It is but little trouble to sprout a handful taken as a sample from the whole lot, by putting it in a damp soil in a warm place. No one can afford to lose the first planting, or to have a lot of deficient hills, simply for want of a few quarts of good seed. Plant corn very shallow; one inch is abundantly deep. If covered deeper than this, some of the kernels will rot before vegetating, if it chance to be cold or wet weather. Half an inch is usually deep enough. A little good, well rotted manure, or ashes, in the hill near but not in contact with the seed, helps to give the plant a vigorous start, even where the whole ground is not manured. See Calendar last month, also article on lime page 107. The latter part of May is early enough for planting at the North. Warm soil starts the plants at once into rapid and vigorous growth.

**TO FASTEN A ROPE-END.**—J. C. Marsh, La Fayette Co., Wis., recommends to prevent the untwisting of a rope's end, by winding it with small wire. Heat the wire to redness, then let it cool slowly, and it will bend easily. The ends can be fastened by winding them under the coil, or passing a few times through the rope.

### A Farm Gate Easily Made.

The plan for a farm gate published in the *Agriculturist* page 45 (Feb. No.), has called out many designs for this desirable farm fixture. The one presented herewith, was forwarded by



a subscriber, J. T. Waters, Jefferson Co., Ill. We have added a few modifications. It is made entirely of ½ inch boards, or 1 inch if desired to have it heavy. Two boards each 6 inches wide are used for the head-piece, *H*, one on each side of the bars *S*. The tail-piece, *T*, and middle upright, are put on similarly. The braces, *B*, 3 to 4 inches wide, will not need doubling; one piece on a side, as shown, will be sufficient.

The parts should be well secured with wrought nails, driven through and clinched. Pine or cedar boards are good; hemlock would be liable to warp; oak would be heavier than needed. A finishing cap or strip 1½ inches wide, should be nailed along the top, to keep water from entering at the joints. The hinges are of iron, ½ inch thick, 3 inches broad, made with an eye to receive the staple on the post, and with arms to clasp each side of the head piece. They should be bolted firmly. The latch, *L*, turns upon a pivot, and is kept in place by a small upright strip. It fastens into a notch in a strong cleat nailed upon the side of the post. Two extra hinge staples are driven into the head post, a foot or eighteen inches above the others. In Summer, the gate hangs upon the lower ones, near enough to the ground to exclude pigs and geese. In Winter it is lifted to the upper ones, to admit of swinging over snow: this sometimes saves considerable shoveling.

A comparatively light gate is preferable to a heavy one, for the reason that it is easier to handle, and it will not so soon drag the post out of perpendicular. The latter difficulty is the great obstacle to overcome. It can be in good part prevented by draining the soil about the post-hole. It is a good arrangement to pin a plank two or three feet long to the bottom of the post, extending in the direction of the gate, and fasten a short brace to this and the post, the whole to be placed under ground.

### Flat Culture of Potatoes.

This can not be attained perfectly, but should be aimed at. Four to six inches is the utmost height allowable for a hill, and this should be got as early as possible in the Summer. And for this good reason: as soon as the stem is well formed, tubers are developed at the sides at a proper distance below the surface, and they will go on enlarging to their full size, if they are not disturbed. But now, if we pile up more soil around the stem, a new set of tubers will be

formed higher up than the first, which will draw away a part of the food that should have gone to the first. The consequence will be that at digging time, many of the tubers will be small, and some of them unripe. So thinks X.

### Salt on Wheat.

W. H. Yale, New-Haven Co., Conn., sends to the *Agriculturist* the following account of his experiments: "In the Spring of 1851 I tried salt on wheat. The first piece, about an acre, was part of an orchard, marked off into ten pace lands. I sowed salt on alternate lands, using five bushels per acre, and harrowed it in with the wheat. On these lands, the grain ripened sooner, was larger, and free from rust. The next year the salted part yielded twice as much hay as the other portion. The second piece, of two acres, had been planted with corn the year before on the sod, and was badly infested with grubs. They had destroyed much corn, and also greatly injured the wheat. On the alternate lands, treated with salt, the wheat headed out a week earlier, and the yield was doubled. I also sowed another field of poorer soil than either of the above, using salt upon the whole of it, and the wheat was the best of all."

### A Weed-Puller.

Many troublesome weeds are best disposed of by drawing them out by the root, a slow but thoroughly effectual process. Mr. Julius Miner sends to the *Agriculturist* the sketch of an unpatented implement long used by him for taking out the Burdock,



and other very troublesome and tenacious roots that infest our fields. It will do good service with all weeds that have a long tap-root. It consists of a stout stick, 3½ feet long, to which is fastened an iron trident or three-pronged piece, the teeth of which are 2½ inches long. Or the whole length may be made of iron. A block 3 to 4 inches thick is bolted to the under side of the handle about 6 inches from the points. This serves as a fulcrum when prying out the roots. A cross-bar 8 inches long is attached, for conveniently thrusting the implement with the foot down to the root. When thus placed, a moderate amount of force at the end of the lever will lift a strong root entire.

### A Horse-Cleaner.

F. W. Stump, Wayne Co., recommends to the readers of the *Agriculturist* the simple implement shown in the annexed engraving, for cleaning horses in muddy weather. It is made of a strip of ½ inch board, 9 inches long on one edge, 7 inches on the other, and 3 or 4 inches wide. A convenient opening for the hand is shaved out on each side, and a hole bored through the square end by which to hang it in the stable. He uses this instead of a currycomb or card for removing dried mud from horses which have been used in wet weather. The currycomb is objectionable; its sharp points are too harsh for the tender skin of the horse. This implement followed by the brush, will answer a very good purpose.



### Growing Carrots—Mulching.

No intelligent farmer doubts that the carrot is one of the most valuable roots that can be raised for stock. For horses, to alternate with oats or ground-feed, they are excellent, being nourishing and at the same time keeping the system free and in good order. Indeed, for horses which do only the lightest kind of work in Winter, carrots and potatoes and hay make a very good diet. When Spring opens, let one mess of oats per day be substituted for one of carrots or potatoes. They are excellent food for milch cows and oxen.—The cultivation of a crop of carrots is a simple process. A rich, loamy soil is preferable to strong, clayey ground. It should be thoroughly enriched, using old manure if it is applied the same year. A better way is to manure heavily the year before. Break up the ground thoroughly with plow or spade. Let this be no surface work. Thrust down the plowshare to the beam, or the spade its whole depth. This is the only way to avoid "fingers and toes," and to get long, large, well-formed roots. Harrow the ground until smooth and thoroughly pulverized; plant  $\frac{1}{2}$  inch deep in drills, two or two-and-a-half feet apart, for field tillage, and eighteen inches for garden culture. This part of the work is greatly expedited by using a seed sowing machine. About two pounds of seed per acre will be needed. From the middle of May to the first of June, is the right time to put in the main crop. For early use, the best variety is the Early Horn. For late Winter, the Long Orange is a great favorite. The Altringham is thought to be hardly inferior to the last.

As soon as the plants are up, go through the rows, and thin out to from four to six inches apart. Keep the cultivator or hoe in motion, to suppress all weeds, and to keep the ground light and loose. This will also greatly help on the vigor and growth of the plants.

A writer at Lexington, Mich., adopted a good plan which he thus describes: "The carrots, thinned and hoed, grew finely, and I now began to think what to do to keep the weeds from springing up again. I remembered having read in the *American Agriculturist* something about mulching apple trees and newly planted shrubs; also I remembered, that last Summer I had some potatoes in my garden—the smallest spindling tops you ever saw—and having some spare stable manure in the Spring, I took it, after hoeing my potatoes, and covered the ground between the drills, and the potatoes improved rapidly and turned out a fair crop; so I now took stable manure and spread between the rows of my carrots. It did not dry up, as the dews and rain kept it moist, and the carrot tops soon covered it; with every shower the strength was carried to the roots of the carrots, and it was farewell to weeds."

In the Fall, as soon as the leaves begin to turn yellow, they may be taken up, cutting off the tops an inch above the crown, and storing away in sand in a cool cellar or a root-house. The tops are of value for feeding. Our correspondent says: "About the middle of October I began to think, what shall I do with this heavy growth of tops? Having had some experience in their worth as food for horses and cows, I took a scythe and mowed, from day to day, and gave them to two colts, feeding three times a day all they would eat up clean: the tops lasted between three and four weeks. Having but 3-16ths of an acre, this may seem fabulous, but it is true, and the colts improved much in flesh. I came to the conclusion, that as to quantity and qual-

ity, carrot tops exceeded any other green feed I was acquainted with." For Spring feeding, the roots may be in pits out of doors, covering the heap with six inches of straw set up endwise, and a foot or eighteen inches of soil laid on smooth so as to shed rain. The same writer gives the following expenses and profit on three-sixteenths of an acre devoted to carrots:

To plowing and raking ground.....	\$1 00
To seed and planting.....	88
To twice hoeing.....	62
To thinning.....	63
To mulching.....	1 00
To cutting tops.....	1 00
To digging and putting in cellar.....	3 50
Total cost (4½ cents per bushel).....	\$8 63

#### CONTRA.

By 192 bushels carrots at 25 cents.....	\$48 00
By 3 weeks' feed for two horses on carrot tops at 37½ cents each.....	2 25—\$50 25
Profit on 3-16ths of an acre.....	\$41 62

Although this might not be reached in field culture on a large scale, it shows conclusively that it will pay abundantly to add an acre or two of carrots to the Summer crops.

### Onion Culture—Hints to Beginners.

The unusually high market price of onions during the past season, will doubtless stimulate many who have had no experience, to go into their culture. No one should undertake to grow them without making up his mind to give the crop all the attention it requires. It is generally a paying crop, but one also which requires a great deal of labor, and unless this can be given, and just at the time needed, the attempt will result in disappointment. To grow onions successfully, requires a certain amount of experience, and we would not advise any one who is without this, to attempt the culture upon a large scale. In the first place the greatest care should be taken in the selection of the seed. This should only be obtained from reliable sources. Unless the seed has been saved from well grown onions, it will produce poor results, for no after-care will produce a good crop. The Large Red, Oval Red and Yellow Danvers are all good keepers. The White Portugal brings a good price but does not keep well for Winter use. Three or four pounds of seed are required for an acre. Onions require a good strong soil. If possible, land should be selected that has been previously used for some hoed and manured crop; if not rich it should be made so by a liberal supply of manure. Well-rotted hog or barn-yard manure at the rate of 20 or 30 loads to the acre is used, and deeply plowed in and then a top-dressing of 150 or 200 bushels of ashes is harrowed in. The soil must be thoroughly pulverized by the harrow, and afterward carefully raked with a large garden rake. It will be found to facilitate working, to lay off the ground in beds of about a rod in width. The sowing should be done as soon as the soil is dry enough to work, the earlier the better. The seed is most readily sown with a drill, in rows 12 to 13 inches apart, covering  $\frac{1}{2}$  inch deep. In absence of a drill, mark furrows with a hand marker, and sow as evenly as possible by hand, and let a boy follow to cover with the feet. After the seed is sown, the ground should be rolled with a hand roller. As soon as the onions are up enough to allow the rows to be seen, an onion hoe should be run between the rows, lightly stirring the soil, and a few days after the rows must be weeded. This is the most tiresome part of the work, and is usually done by boys, who crawl along on their knees astride of the row, and remove every weed from among the onions. The weeds have to be constantly fought, and the hoeing and weeding must

be repeated as often as they show themselves, for the success of the crop depends in good part upon thorough weeding. Where the seed is properly sown, but little thinning will be needed, but where they stand too thick, they should be thinned to about three inches in the row. Very full details will be found in the Onion pamphlet, published at the office of the *American Agriculturist*. See Advertisement.

### Sugar from the Beet.

The question whether sugar can be produced from the beet root in this country as in France, is in a fair way of being definitely settled. Hitherto, after many costly experiments, it has been supposed that owing to the difference of climate, soil, or other undetermined causes, the attempt would be fruitless. We learn from the Valley Farmer, that during the past year Mr. Belcher, a large sugar refiner in the West, has been testing the matter again on land contiguous to the Illinois Central Rail Road, with seeds of various kinds of beets procured from Europe. His success is reported as very encouraging. The Agricultural Societies of Illinois and Iowa, aided by the Ill. Cent. R. R. Co., are lending their aid for further trials. An arrangement has been concluded with a company of Germans to establish a refinery on the farm of W. H. Osborn, President of the R. R. Co., at Chatsworth, Ill., and fifteen hundred acres are to be cultivated with the beet the coming season. In France the production of sugar from the beet has become of national importance, amounting in a single year to nearly 150,000 tons. The present is a most favorable time for the initiation of the enterprise in this country. It is quite likely that the above movement gave rise to the specious advertisement of the "New Oriental Sugar Plant" noticed in the *Agric. culturist* last month.

### Late Sowing of Clover.

"J. H. A.," Mifflin Co., Pa., sends to the *American Agriculturist* the following suggestions: "In this section our best success with clover has been when it has been sown after the ground had become quite well settled in Spring, and the weather warm enough to germinate seed quickly. We believe that the sooner any seed germinates after being placed in the soil, the more certain will be its growth. It is known that many kinds of seeds can not remain more than a few days in the ground during weather unfavorable to germination, without losing their vitality. The seed of clover is so small, and the germ so minute, that however unfavorable the effect of too early sowing upon either, it is almost sure to escape the notice of the farmer; otherwise I think sowing this seed in March, in this latitude at least, would now be almost abandoned.

We may, in some measure, judge of the injury done to the seed of young clover by a month or six weeks of weather unfavorable to the germination or growth, by considering the natural requirements of the plants. I believe no field crop is more benefited than this, by warm showers and sunshine. Even after the first season's growth, and being quite well rooted, it requires what we call the best growing weather to bring it to perfection—and under such circumstances it is a plant of rapid growth. Clover during a cool Summer always looks yellow and sickly, and is sure to be a short crop. From this, may not the farmer conclude that the alternate freez-



ing and thawing of the ground, and the consequent swelling and shrinking of the seed, and the frequent starts and checks the young plant must receive during four to six weeks, greatly injure the plants just at the start, which can not be remedied by after-treatment, as the "set" will be too thin.

#### Experience with Millet.

Abraham Herbein, Berks Co., Pa., writes to the *Agriculturist* that thirteen acres of corn replanted twice, last Spring, were finally made worthless by the cutworms, and so about the middle of June seven acres of the plot were sowed with millet (Hungarian Grass). The soil, a black shale, was rather thin in some places, and therefore easily affected by a drouth which occurred from the setting to the ripening of the seed. On these spots the millet grew only about ten inches high, and shriveled before it was cut. Where the soil was deeper, it yielded at least three tons of cured hay per acre. From the whole seven acres, twelve tons were harvested. About one hundred bushels of seed were obtained from this, much less than would probably have ripened, had the weather been favorable. The straw, after being threshed by a machine, was eaten by cows and other stock as readily as the best meadow hay. The seed is considered by him equally valuable with rye or corn for cattle and hogs, but not so suitable for horses.

The remaining six acres of the above field were sowed with buckwheat, which returned only thirty bushels. It was injured by dry weather, and nipped by early frost. Mr. Herbein thinks that millet will generally be found a safer crop than buckwheat to replace a failing crop of corn. It ripens sufficiently early to be followed with winter grain. He also intends to substitute the millet for oats this Spring, last year's oat crop having been a failure from the ravages of the aphides or yellow plant lice.

#### Seeds by Mail—The New Law.

The reduction of the postage on seeds and cions to one cent an ounce, is one of the best reforms of the age, and is giving a new impulse to horticultural improvement throughout the country. It is especially helpful to those who live in the thinly settled districts, remote from the large towns or cities in which seed stores are kept, and in the suburbs of which most of our nurseries are located. It virtually puts down the best seed stores in the country at the door of every subscriber to the *Agriculturist*. He has only to look over our advertising columns and order what he wants by letter. He gets first-rate seeds for about the same price he could buy them in the city, without the trouble or expense of the journey. Though he live in the new settlements of the west, he can procure the best seeds and cions grown in the East, at a trifling postage expense.

Its tendency is to make these articles both cheap and good, for it favors competition and makes every seed grower directly responsible to the purchaser. Every man who has a choice variety of vegetables or fruits, has an inducement to multiply it, for, if he will advertise, he has a ready market for the seeds or cions at the nearest post office. Small plants and trees, if properly packed, will go safely by mail. Any one who examines our advertising columns will see that this business is largely on the increase.

P. S.—The above was prepared for last month's paper, but crowded out. Since it was

written, a new postage law has been enacted, according to which, as we understand it, the rates after July 1st will be: 2 cents on one, two, or three circulars in the same envelope; and on seeds, cuttings, etc., 2 cents on any weight up to four ounces, and 2 cents for each additional four ounces, or fractional part of four ounces. This will be a reduction, for on four ounces or eight ounces the postage will be only 1 cent an ounce. The new rates will therefore facilitate the sending of large parcels, and heavier seeds. A whole pound will go for 8 cents to any part of the United States and Territories.—The present rate (1 cent per ounce) continues until June 30. Many of our subscribers sending for seeds, have made themselves needless expense, by putting 3-cent stamps upon their envelopes, where only 1-cent stamps were required, according to the directions plainly given. When practicable, we have removed the extra stamps, and put them inside of the envelopes, but this could seldom be done without defacing the stamps.

#### How Much Seed per Acre?

The following suggestions condensed from an article in the *Mark Lane Express* (England), apply equally well on this side the Atlantic. Land naturally poor, or temporarily reduced in fertility by over-cropping, requires thick seeding. Soil in low condition can not force vegetation to any extent, therefore little or no tillering takes place. Consequently each kernel will produce but one stem, and, when thickly seeded no more are required or can find room to grow. The opposite of this is the case with rich soil. The increase by tillering will far exceed the difference made in the quantity of seed generally put on. Suppose five bushels of oats per acre are to be sown on poor land, and two bushels on good soil. If each plant of the latter should throw out three tillering stems there would be a heavier yield than on the thickly seeded portion. But where the tillering process is fully developed as on the wheat plant in rich ground, the average will far exceed three collateral stems. Of course, every allowance should be made for liability to loss from other causes, as worms, insects, unfavorable weather, etc. A table showing the proper amount of various seeds per acre, to be sown, including the variations to be made on account of difference of soil, was published in the Nineteenth Volume of the *American Agriculturist*, page 139 (May, 1880).

#### Feeding the Chinch Bug.

Mr. R. F. Roberts, of Racine Co., Wis., sends to the *Agriculturist*, the experience of a farmer in that County. "Two years ago he seeded down a piece of land sowed to oats. The grass took well and the oats gave a large yield of excellent quality, while all the rest of his oats and his wheat suffered greatly from the ravages of the chinch bug. Last Spring he seeded down another piece sowed to oats, which yielded a large crop of heavy grain, while a plot of wheat sowed beside it was scarcely worth cutting. His conclusion is: that the chinch bug feeds on the tender grass, and while they are doing that, the grain matures so that it is beyond their power to injure it. He noticed that when he cut the grain on the plots seeded down, the bugs appeared as thick as they were on the other fields. This coming Spring he is going to sow grass seed with all his grain crops, using two thirds

the quantity of grass seed commonly sown, when seeding down meadows, and of wheat and oats the same quantity as if no grass seed was sown with them. He prepares his seed wheat by soaking in strong brine and drying with slaked lime." [The lime, and the brine, are always good for seed wheat and seed corn.—ED.]

#### To Sweeten Butter-Firkins.

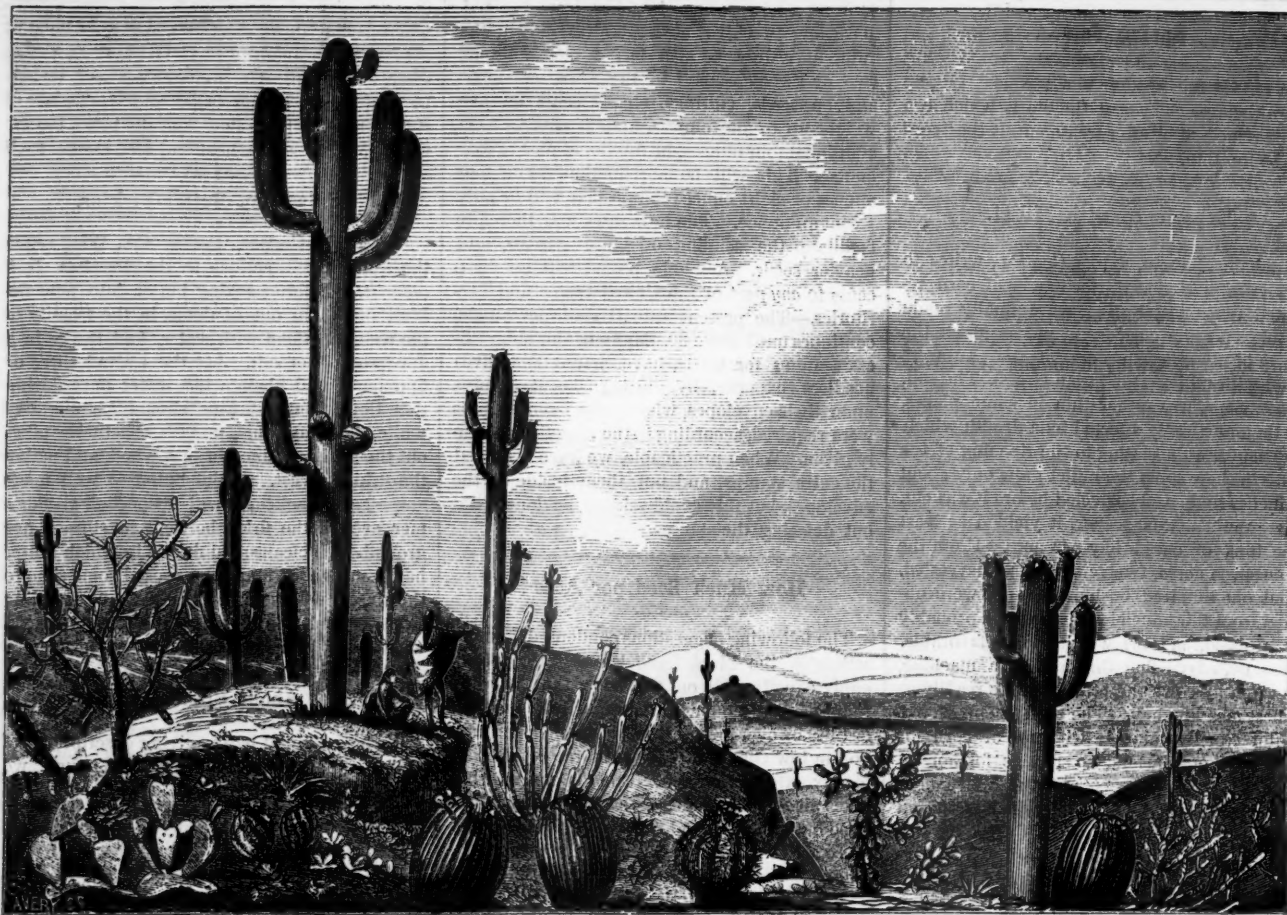
Mrs. Arch. Cooper, Racine Co., Wis., sends the following directions to the *American Agriculturist*: "Before packing butter into new firkins, put them out of doors in the vicinity of the well, fill them with water, and throw in a few handfuls of salt. Let them stand three or four days, and change the water once during that time. Butter-firkins should be made of white oak, and this process effectually takes out the acid contained in that wood, and makes the firkins sweet. If the butter is well made and rightly packed, it will keep good all Summer, even if the firkin be kept in store above ground. To cleanse old firkins in which butter has been packed and left exposed some time to the air, fill with sour milk, and leave standing twenty-four hours; then wash clean, and scald with brine. This makes them as good as new.

#### Questions About Plants and Flowers.

We have several letters giving descriptions of plants and asking us the name. Though we may be able to give a tolerable guess, it is not possible to name a plant in this way with any degree of accuracy. Those who wish for information of this kind, which we are always ready to give, should send us a specimen for examination. We can sometimes recognize a plant from a mere fragment, but it is better in all cases to send a complete specimen, which should include some of the flowers; the seed, ripe or partly so; the upper leaves; and if the lower leaves are different in shape, one of those also. The specimens should be dried by laying them in an old book or by putting them between several thicknesses of newspaper with a heavy book laid on to press them. Use only pressure enough to keep the leaves flat while drying.

#### Preparation of Furs.

Several of our Western readers have asked how they can prepare the skins of animals for use. We have not been able to get much information from the fur dealers, who wish to keep the secrets of the trade to themselves. We understand, however, that the dried pelts are put into tubs with a quantity of rancid butter, (probably rancid is used because cheaper than fresh,) and they are then trampled by the feet until they become soft and pliable; after this they are trampled with saw-dust—mahogany being preferred—to remove the grease. The furs are then ready to be made up. We find the following in the *California Farmer*. It will be observed that the directions do not give the amount of water to be used; probably enough to well cover the skin will answer. We suppose that this process is intended for fresh skins: Take one pound of alum to five pounds of hide, a double handful of salt—all of which dissolve in warm water. Put the skin in and let it stand for from twenty-four to forty-eight hours; then take out and dry, and it is done. To tan with the hair off, the skin must be first soaked in strong lime-water till the hair comes off; then treated as directed for tanning with the hair on.



VEGETATION IN THE SOUTH-WESTERN TERRITORIES.

Sketched and Engraved for the American Agriculturist.

One accustomed only to the vegetation of the Northern States is struck, as he travels southward, with the new forms which meet his eye, giving new features to the landscape. If he continue his journey until he reach the Territory of Arizona, upon the borders of Mexico, he will find a vegetation entirely unlike that which he left at the North. Instead of green fields, the parched soil bears only a few scattered tufts of grayish grass, and in place of leafy forests, in whose shade one might find shelter from the burning sun, there are the strange leafless trunks of the Cactuses, whose singular appearance and spiny branches repel rather than attract the traveler. Above we have sketched and engraved a scene in this barren territory, which well illustrates the appearance of the region where the plants of the Cactus family seem to attain their greatest luxuriance. These plants are peculiar to the American Continent, and are represented with us by the Prickly Pear, which is found as far North as Massachusetts and Wisconsin; but no one, from seeing this, or even those which are cultivated as greenhouse and parlor plants, can form an idea of the peculiar effect produced where the mass of the vegetation is made up of larger plants of this family. One of the most striking characteristics of these plants is, that they bear no leaves, but the green rind of the stems does their work and answers in place of them. Instead of leaves they bear tufts of spines or thorns, the number, size and shape of which vary with the different species. Some of these spines are several inches in length, either straight or hooked at the end; others are small and hair like, but all

sharp and capable of inflicting annoying or dangerous wounds. These Cactus plants are wonderfully adapted to the region in which they live. But very little rain falls there, and this only during a few weeks, all of the rest of the year being a continued drouth. While in our moist climate, plants expose a great surface of leaves in order to facilitate evaporation, there they are constructed on a plan which exposes the least possible surface—they are all cylinders or spheres. When the short rainy season comes on, these plants start into life, make their annual growth, and flower, and produce fruit. The dry season soon follows; the whole country, under the influence of the sun and parching atmosphere, becomes burned and barren like a desert. All the tender plants which the rain had called into existence, perish; then the Cactuses go into a dormant state; they have no leaves to wither and fall away; they close up the pores of their thick skin, and resisting the drying influences around them, they retain their juices until the next rainy period awakens them to activity again. Notwithstanding the uncouth aspect of the plants themselves, they produce flowers which are often of great beauty. Some of the Cactus family are among the chief ornaments of our green-houses. We have seen them in the wild state when the desert literally "blossomed as the rose." Their fruits, too, are generally pleasant and often delicious, some being very much like figs, and others having a fine fruity flavor. The largest plant represented in the engraving is the Giant Cereus (*Cereus giganteus*), which grows to the height of 40 to 60 feet, sometimes rising in a single column, but more fre-

quently branching and throwing out great up-turned arms. Though this is, from its size, the most conspicuous, there are others, a few of which are represented in the foreground, which are not less noticeable. Some of these are mere spiny balls, others branching and tree like, others in shape like the Prickly Pear, only as tall or taller than a man, and all of them so provided with thorns that the careless traveler soon learns to respect if he can not admire them. We know of nothing more strange and wild than to see, as we have often done, a landscape in which these outlandish plants form the chief vegetation.

#### Trenching Grass Plots or Lawns.

There are good reasons for this. A lawn is to be planted more or less with trees, and they will grow vastly better in a deep soil than in a shallow one. They will strike their roots down deep, and spread them out wide in search of food, and their rapid growth will show their keeping. Even small trees set in such ground will soon outstrip large ones set in shallow soil, and will always be handsomer. A lawn is also to be a carpet of grass. If it be well trenched, the grass will be vigorous and green in Spring, Summer, and Fall. It will not turn brown and burn out in the first "dry spell." The moisture from below will continually rise to keep the roots fresh. The grass will bear frequent mowing and rolling, and will constantly improve. If any one doubts the good effects of trenching, let him compare a lawn so treated with one only surface worked, and he will be convinced.



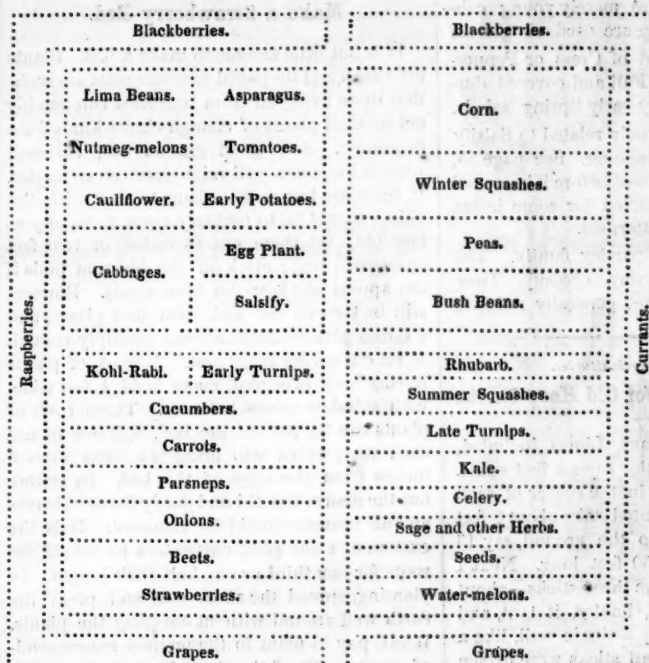
### Spring Salads.

Salads are relished by most persons the year round; but in Spring particularly, when new vegetation is putting forth, they are regarded as especially seasonable. They look refreshing upon the table and are acceptable to the palate. Water-cress is among the earliest of the salad herbs, but as this requires a constant stream of running water for its successful culture, it is not within the reach of most persons. Corn Salad, or Feticus, is a very popular salad with Europeans and is generally cultivated for our city markets. It may be had very early, and is very readily raised by sowing in autumn and covering with a slight winter protection. It is a mild, tender herb, without much taste of itself. Mustard makes a good salad. It may be sown broadcast as soon as the ground is thawed, and should be cut or pulled when 2 to 4 inches high. Cress or Peppergrass is a very common salad, either used by itself, or mixed with Lettuce. It should be sown very early upon a light quick soil, and cut for the table as soon as large enough. Lettuce is however the universal and popular salad plant. Some of the hardy kinds may be sown in Autumn and covered during Winter with straw or coarse litter. Sow very early in the Spring. It is a common custom to plant rather thickly in rows and allow the plants to crowd one another—in this way a partial blanching is effected. Lettuce can only be had in perfection by growing the plants singly. To have it early, sow in the hot bed or in boxes in the house, and as soon as the weather will allow, transplant in rows, a foot apart each way. The soil should be highly manured with well rotted compost and every means used to ensure a rapid growth; hoe frequently and give liquid manure. Slow growing plants will be without the tenderness and crispness so desirable in lettuce. Sowing in the open air may be done as soon as the ground can be worked. For varieties, we prefer the Butter, Ice Drumhead, and Neapolitan Cabbage, (the latter is on our seed distribution) though almost any sort is good, if well grown as above directed.

### Lima Beans, and How to Plant Them.

Few products of the garden are more acceptable than Lima beans, cooked green, and also when ripe. For some reason many persons fail in growing them well, however. They either do not come up at all, or they make a weak or sickly growth. If planted like the smaller varieties, with one to three inches of earth over them, and this perhaps packed down with the hoe and by rains, the cotyledons or seed-leaves can not force their way to the surface, and they rot. The soil should be dry, loose and warm, and the covering very light—hardly more than just to hide them. It is best to raise hills of moderate height, and set poles before planting; then stick the beans in with the eye down, and leave them at or just below the surface. A very good plan is, to prepare a small bed of light, warm soil, on the south side of a tight fence, and stick in the beans all over its surface, two inches or so a part, and sprinkle on a very light covering of sand, or fine soil. If needed, a sprinkling of water may be given often enough to keep the soil damp. If a chance cold night occurs, throw an old blanket or mat over the bed. When sprouted, before rooting, transfer to hills. A still better way, perhaps, is to start the separate beans in bits of sod, and transfer

these to the hills. See particulars under "Hot-bed Substitutes," on page 90, April *Agriculturist*.



### How I Laid out My Vegetable Garden.

[The above plan, together with the notes below which accompanied it, are to be taken as suggestive merely. The size, form, and location of a garden will in every case determine the plan. The appearance of a garden may often be improved by a proper arrangement of the tall and low growing plants.—Ed.]

EDITOR of the *Agriculturist*: Having long looked forward to retiring from business in the city, to a farm in the country, I a few years ago so far secured my wish as to obtain a plot of ground, about 100 feet square, upon which to realize my long cherished desire to be a cultivator of the soil. I commenced without experience, and of course made many failures before I attained even tolerable success. I will not trouble you with an account of my failures, further than to state that they were mainly due to sowing too early or too late, and to using either too much or not enough seed. My object is to give a plan of the disposition of my beds—not because I think it the best that can be adopted, but it is easier to alter a bad plan than to originate one altogether, and I think an inexperienced person, as I was, will go to work more readily if he have a map of the route some one has traveled before him. The plan hardly needs explanation. There is a walk all around, 2½ feet wide, leaving a border of five feet next the fence. Two principal walks, five feet wide, cross each other at right angles. These are all the paths that are really needed—more would waste too much space and give extra trouble in keeping them in order. No raised beds are made, as these, where the ground is naturally or artificially drained, are needless. By avoiding small beds, the soil can be well and cheaply put in order by the plow and harrow; I used a subsoil plow and found a decided advantage in it. My hot-beds were on the space occupied afterwards by watermelons, the manure used in them being forked in for the crop. Not having a seed-sowing machine, I constructed a marker like a large wooden rake, the teeth of which

were V-shaped, and so arranged as to be moved; by means of this I could mark out rows at distances of 6 inches, 12 inches, or 18 inches,

which are the spaces most generally required. The marks being made, the seeds are sown by hand and then covered by drawing the earth over with the back of a rake or with the foot. On April 15th, I sowed spinach, onions, early turnips, cabbages, early beets, peas, salsify, and a few carrots, and planted early potatoes. Spinach, radishes, etc., are not down on the plan; these I sowed in the spaces between hills of potatoes and cucumbers, and wherever there was a spare spot. The 1st of May I made a sowing of most of the other seeds; on the 15th I set out the plants from my hot-beds, and put in melons of

all kinds and late squashes. June 20th, the late beets, turnips, peas, and sweet corn for succession, were sown. As the results of my labors I had better and fresher vegetables than could be purchased in market, the great pleasure of working the garden, and the great satisfaction of enjoying the fruits of my own toil. C. H.

### Some less Known Garden Vegetables.

Correspondents ask us for brief descriptions of several of the garden vegetables, the seeds of which are found in the catalogues, but which are not generally known and cultivated. Many of them are mere flavoring herbs, and others are articles of food which are only obtained with considerable trouble, and their cultivation is mainly confined to the professional gardeners.

**Artichoke.**—The plant usually known by this name in this country, is the *Jerusalem Artichoke*, a kind of sunflower, which bears tubers somewhat like a potato. The true Artichoke is nearly related to the thistle. It bears an enormous thistle-like head of flowers, which are surrounded by a cup of thick fleshy scales. This is the portion which is eaten. The seed is sown in drills, the plants thinned to a foot apart, and cultivated during the first season. During the Winter the plants are earthed up or covered with litter, and in the following Spring they are set out in clumps or hills of two or three plants, the hills 4 feet apart each way. They need a very rich soil. The heads which are produced the second year, are cut as soon as they are fully formed, and before the scales begin to open. They are boiled and served with drawn butter. The crowns need protection in Winter. Old plants throw up several suckers which may be taken off and planted to increase the stock.

**Burnet.**—A hardy perennial plant, the young and tender leaves of which have a taste and smell like cucumbers. Sow in Spring and thin to 6 inches in the row.

**Cardoon.**—Is a plant much like the Artichoke, the leaf stalks of which, after being blanched

like celery, are much used in France in stews. The seeds are started in a seed-bed. The young plants are afterward set out in trenches and treated like celery. It is not our favorite.

*Collards* or *Coleworts* are merely young cabbages not headed. They are used as greens.

*Roquette*.—A hardy kind of Cress or Pepper-grass; if planted in early Fall and covered during Winter it yields very early Spring salads.

*Scorzonera*.—A plant closely related to Salsify and grown in the same manner. See page 85, *March Agriculturist*. The root before it is cooked should be scraped and soaked for some hours in water to remove the bitterness.

*Skirret* belongs to the parsley family. The roots are used in the same way as Salsify. They have a peculiar taste, not generally relished.

For the American Agriculturist.

### Beans and Peas—Use for Old Hoop-Skirts.

I planted my pole beans, Limas included, in hills 20 inches apart, the rows 3 feet apart. On the outside ends, and in the center of each row, I inserted a sharp pointed stake about 8 feet long, driving it firmly into the ground, say 15 inches. The rows were 50 feet long. Next I fastened a small wire to the three sticks—about six feet from the ground, hauled it taut, and secured it to each stake by a single nail, like a telegraph wire. Two small sticks were driven very slanting, one on each side of every hill. A ball or two of common wrapping twine completed my arrangements. I tied the twine to the outside stick, passed it twice over the telegraph wire, down to the next stick, over the wire again, and so on to the end; thus each hill of beans had two or three strings to climb up. They took to the strings freely, soon clasped the wire, and were safe from all ordinary storms. Shall I tell you Mr. Editor, what wire I used? Don't smile; it was discarded hoop skirts, heated in the stove to destroy the temper of the steel wire and take off the cotton wrapping; and I assure you, that all who saw my beautiful rows of beans swaying gracefully in the wind, were ready to agree cordially with the "Old Bach" who writes this, that the aforesaid wire was never before put to so useful or ornamental a purpose. I used my old discarded bean poles and strings to support my peas, sticking the poles four feet apart on each side of the rows of peas. Four horizontal strings tied to the poles at proper distances, one above the other, completed the supports. It answered beautifully, and was quickly imitated by my neighbors. For the peas a much stronger string is required than for the beans. Fine wire would be better and would last for several years. J. H. Dodgeville, Wis.

### Economizing Room in the Garden.

Where space is abundant, a few extra feet are of little account, and the various plants may be cultivated without particular regard to economizing room. But thousands of our readers have only a limited area to improve, and need to make the most of it. Much room will be saved by dispensing with beds for vegetables. Let them be simply planted in long rows, extending across the space devoted to the purpose. No dividing walks are needed between the various sorts. One walk, the length of the garden, with rows extending on each side, is a good arrangement. Several plants, as radishes, lettuce, etc., may be scattered among

hills of young vines, and by a succession, as late corn after early peas, turnips after early potatoes, etc., much more produce can be realized.

### Make a Strawberry Bed.

It is but little trouble to make a bed. Plants are cheap and the postal arrangements are such, that those living far from nurseries can readily get by mail plants of enough choice kinds for a beginning. Any good garden soil, enriched with old manure, will raise good strawberries. If there are but a few plants to start with, the object should be to multiply them as rapidly as possible; set them out 18 inches or two feet apart each way, prick off the blossom buds if any appear and keep free from weeds. Runners will be thrown out and form new plants, and a dozen plants will in a year multiply enough to set out a very large plot. A stock of plants having been procured, make beds 4 feet wide, with suitable alleys between. Three rows of plants can be put on the bed, eighteen inches each way, which will bring the outer rows 6 inches from the edge of the bed. In setting out the plants, the old and partly decayed leaves and all runners should be removed. It is the custom of some good cultivators to cut off the roots for one third or one half their length. In planting, spread the roots well and press the earth well around without covering the plants. It will pay to plant in the manner recommended on page 309 of the *Agriculturist* for 1861. A mound of earth is made in the hole, the plant is set upon the ground with its roots carefully spread out over it, and the hole then filled with earth. This will be readily understood from the engraving. We planted in this way a bed of over a thousand plants without losing one.—There are two ways of growing strawberries. One is to keep all the runners pinched back as fast as they appear. In this way the plants form large stools and continue in bearing 5 or 6 years. Most varieties do well in this way, but Wilson's Albany, from its manner of growth, is not so well suited for this kind of culture. Another, and the most common way is to let the runners grow, and a bed of this kind will give one full crop and a partial one, when it is spaded up. There of course should be another bed ready to succeed it. For varieties see p. 101, last month.



### Celery.

The great difficulty in raising this delicious product of the garden, is in starting the plants. The seeds are slow in germinating and the young plants are very delicate. There are several kinds, but perhaps none better than the early and late White Solid varieties. For the earliest, the seed should be started in a hot-bed. A very gentle heat is all that is required. The manure for this hot-bed should be mixed with plenty of old leaves, and the soil in the bed should be 10 or 12 inches deep. The seed should be merely covered with soil and the bed should be shaded by mats until the plants are well up, and then they should be protected from the sun during the hottest part of the day, and have plenty of air. Water and weed the bed carefully. Thin out the plants to an inch apart, when an inch high transplant to another bed. For out of door sowing, select a place where the bed will be shaded by 10 or 11 o'clock, burn

the surface over by a fire of brush or straw, and then sow the seeds and lightly rake them in. If a shaded place is not at command, cover the bed with leafy brush, or set up a screen of some kind, and keep the bed well watered. In weeding or stirring the soil about the young plants, be careful to do it only when both soil and plants are dry. When three or four inches high the plants should be placed in trenches; these should run north and south and be one foot wide, and two feet deep and about 4 feet apart. Six or 8 inches of well rotted hog or barn yard manure should be put at the bottom of the trenches; add 6 inches of soil, and spade the whole up thoroughly. The trenches may be prepared for sometime before the plants are large enough to put out. When the plants are large enough they may be transplanted to the trenches; fork over the soil at the bottom of the trench and put out the plants, a foot apart. If the young plants are disposed to form a large tap root it should be shortened. It is well, if the weather is hot, to shade the plants a few days after transplanting, by laying boards over the trenches, while the sun shines hotly. As the plants grow, soil is to be carefully filled in below the green leaves from time to time. A light, sandy soil, with plenty of manure, is better for celery than a heavy, clayey, or wet soil.

### Cauliflower.

This is one of the most delicious vegetables the garden affords, though many fail in raising it. The requisites are good seed and good soil. If the seed is not of a good stock no after culture will produce satisfactory results. We have grown Early Paris, Thorburn's Nonpareil, and Large Asiatic and had satisfactory results from each. When very early cauliflowers are desired, the seed is sown in Autumn, and the partly grown plants are wintered over in the cold frame. Seed for a later crop may be sown now, either in a frame, or in an open bed. The seedlings are raised in the same way as cabbage plants. The bed to which they are transplanted can hardly be too well prepared. Deep working, and a plenty of well decomposed manure, are essential to the growth of the plants. Set out at two feet apart each way. It often happens that the growing point or bud of the cauliflower is enclosed by the base of the leaf stalks and is prevented from developing. Such plants will never make a head and should be rejected. The Cauliflower is subject to the same enemies as the cabbage, and needs the same frequent hoeing. Should a drought occur give water and stimulate with liquid manure in moist seasons. The heads should be cut when fully formed, and before they become loose.

### Planting and Pruning the Grape.

Several letters have been recently sent to the *Agriculturist* inquiring about pruning the vine. It is now altogether too late to prune old vines. We shall endeavor to make the whole matter plain at the proper season. A few hints concerning the treatment of newly planted vines will be timely. The vine should be one or two years old, when planted. Some of the best cultivators prefer to begin with those only a year old. A vine of this age should be cut back to two or three buds, and after the buds start, all the shoots but the most vigorous one, should be pinched off. Place a stake by the side of the vine to which it is to be tied. As side branches spring from the main shoot, pinch them



back to a single leaf. The object of the first year's cultivation should be to make as strong a main shoot as possible. In Autumn the season's growth is to be cut down to two buds. If a vine two years old is planted, it should be cut back, and only two shoots be allowed to grow. These are to be trained to stakes, and to have the side shoots pinched off, as directed for the one-year-old vine. In the Autumn there will be two strong canes, which are to be cut off to three feet in length. The vine treated in this way becomes vigorous, and is in proper condition for the favorite renewal system of pruning.

### The Currant Worm.

It does not seem possible to exterminate this pest, but it may be kept in check. Deluge the bushes with diluted whale oil soap, applied through a garden syringe having an upturned nose. Mind to give them a good soaking underneath, as well as overhead. If any one has not the soap at command, let him burn tobacco or sulphur, in an old pan, setting the dish under each bush for several minutes. Let it consume slowly, to make as much smoke as possible. Or this: Make a smudge of old scraps of leather, and let it lie under each bush until the entire foliage is filled with a cloud of smoke. This will be more efficacious if a little powdered sulphur is thrown in. Be careful not to scorch the leaves.

For the American Agriculturist.

### Use Large Potatoes for Seed.

The question of the best kind of seed potatoes is not settled for all parts of the country. It is settled among market gardeners of large experience who have to dispose of their crop in the cities. It is important for them to raise the largest number of merchantable potatoes from a given quantity of seed, upon a given area. They have no home market for small potatoes, and do not believe in keeping them for seed. With the farmer at a distance from market, the case is different. He raises his crop mainly for home consumption, and what are not consumed in the family are fed raw or cooked, to stock. Small potatoes weigh more to the measured bushel; they are as nutritious, weight for weight, as large ones, and if they yield as well, he is satisfied. He does not stop to consider the increased labor of harvesting, or the small value of this root for feeding stock in comparison with its value for human food. For the former use, they are not worth over twenty-five cents, and for the latter, are worth the market price, which is fifty cents and upward in this vicinity. [Good merchants are now, (April 10,) wholesaling in New-York at \$3.25 per bbl., and peach-blows and other common sorts at \$1.50 to \$2.—Ed.]

In the suburbs of the city, especially on Long Island, potato growing is pretty nearly reduced to a science. Many of the farmers make this their main crop, and not a few raise two thousand dollars' worth and more, in a season. They plow in horse manure and plow deep. They select their largest potatoes for seed, quarter and plant the pieces in drills about fifteen inches apart, and prefer to have only four stalks in a place. The product is potatoes of very uniform marketable size, with few or no small ones. They require very little sorting, and the whole crop is turned into money at the market price. These farmers doubtless know what is for their interest, and ridicule the notion of planting small potatoes to realize from.

Farmers who do not make potatoes a special-

ty, may learn something from the large experience of these men. It is more profitable to raise potatoes for market than for stock, and with all the drawbacks for rot, potatoes generally pay better than corn in the old States, especially where farmers are within convenient wagon drive of a market. It looks reasonable that the body of the tuber should contain the strongest germs, and be most secure from rot. Possibly the continued planting of small tubers has a tendency to weaken the stock and to induce rot. This year a multitude of men that were upon the farm last Spring are in the tented field, and we shall want all the potatoes we can raise, to make breadstuffs cheap. Plant one more acre, and let the seed be large. CONNECTICUT.

For the American Agriculturist.

### Notes on Bedding Plants.

BY THOMAS CAVANAGH.

At this season of the year, the markets are well stocked with beautiful flowers, principally house plants. These are grown in hot-houses, and forced into bloom, and many are tempted to purchase them by their showy appearance. But although beautiful for a short period, they soon cease flowering, and in most cases lose their leaves, much to the disappointment of the purchaser. The reason of this is, the sudden check they receive upon being removed from a very high temperature, to one much lower. As a general rule, a rapid growth makes a weak plant, and a slow growth makes a strong one. In purchasing plants the proper way is to make a list, go or send to some responsible florist, and let him select young and thrifty plants *not yet in bloom*. These when planted out, will go on growing, and when fairly established in the soil, will commence blooming and continue to do so during the Summer. Many experience difficulty in purchasing plants not yet in bloom, from not knowing the names and colors. The following is a list of some of the many favorites now in cultivation, and which from their cheapness may well be added to every private flower-garden.

**ROSES.**—*Hybrid Perpetuals*: Baron Provost, bright rose color; Giant de Batailles, crimson; Duchess De Cambaceres, bright rose, very fragrant; Jules Margottin, bright crimson; Madame Plantier, pure white; Caroline De Sansel, blush. The above flower at intervals only, during the summer.—*Monthly roses*, flowering all through the season: Hermosa, bright pink; Agrippina, dark crimson; Souvenir De la Malmaison, white changing to blush; Safrano, straw color; Devoniensis, white tinged with cream color; Archduke Charles, dark crimson.

**VERBENAS.**—Lady Palmerston, blue with a white eye; Ocean Pearl, maroon with a white eye; Mrs. Woodruff, bright scarlet; Philadelphia, striped white and crimson; Indigo, deep blue; Snow Wreath, white; Manetti Coccinea, striped white and scarlet, good for edgings; Adrienne, purple; Princess Clotilde, white, purple eye; Giant des batailles, crimson; Mrs. Field, deep crimson; Black Knight, dark maroon.

**GERANIUMS.**—Tom Thumb, scarlet; Hendersonii, white; Tom Thumb's bride, pink; Princess Royal, blush white; Variegated leaved Pennyroyal; Flower of the day, silver edged leaves, color scarlet.

**LANTANAS.**—Grand Sultan, red; Aurea, orange; Album, white; Mrs. Shale, pink.

**HELIOTROPES.**—Corymbosum, lavender; Reine Des Heliotropes, dark violet.

**FUCHSIAS.**—Speciosa, pink; Princess of Prussia, crimson, and white; Madame Cornillon, crimson, double white centre; England's Glory, waxen sepals, crimson centre; Black Prince, dark purple; Folia variegata, variegated leaved.

**SALVIAS.**—Splendens, bright, scarlet; Amabilis, lavender blue; Patens, deep blue.

**PETUNIAS.**—General McClellan, finest double one yet raised, spotted crimson and white; Zouave, beautifully marked, pink and white.

**DAHLIAS.**—Sir Colin Campbell, crimson; King of Yellows; Negro, dark maroon; Amazon, yellow, scarlet edge; Celestials, violet; Mrs. W. Puget, pure white.—*Dwarf Dahlias.*—Little Negro, dark maroon; Snow Flake, white; Victor Hugo, crimson; Bouquet, blush; Golden Pheasant, yellow, edges tipped with red; Mr. Schwab, scarlet. There are other fine ones.

**MISCELLANEOUS PLANTS.**—*Ageratum*, flowers light blue. *Cuphea platycentra*, or fire cracker plant, curious shaped scarlet flowers. *Calceolarias*, or ladies' pockets, showy plants, but soon out of bloom. *Nierembergia Gracilis*, flowers light blue. *Gasania Splendens*, showy flowers, of a bright orange, white and brown. *Bouvardias*, bright scarlet. *Lobelia Speciosa*, color blue, fine for rustic basket. *Tropaeolum*: Tom Thumb, scarlet. *Aloysia citriodora*, lemon scented verbenas, delicate white flowers. *Feverfew* (*Pyrethrum*), double white, daisy like flowers. *Colius Versehaffetti*, one of the new bedding plants which is not yet sufficiently well known to have a common name. The foliage is of a rich velvety crimson, the edges of a bright green.

### Arranging the Spring Flower Garden.

Much enjoyment of the garden in Spring is lost, by having flowering plants scattered about over so wide a surface that they cannot be seen together. They thus fail of the fine effect produced when grouped near each other, and with some regard to color. The flowers of early Spring are few in number, small in size, and modest in coloring. They need bringing together, to have the benefit of each other's company.

For example: the Snow-drop is almost nothing if alone, and so the *Bulbocodium vernum*; but group them in clumps of a half dozen plants each, and they will command the attention of even Mr. Gadgrind. It is a good plan to set the crocus in clusters of distinct colors, or in circles, making rings of the different colors—orange, white, blue, and the intermediate shades. The Hyacinths are larger and more showy, and can better take care of themselves, but even these do best in a bed by themselves, instead of being scattered about in places wide asunder. So of Pansies, and of the Primrose family, including the *Polyanthus* and *Auricula*. We were much pleased last Spring, in seeing an oval bed of the *Polyanthus*, arranged with the different colors in distinct circles. And here, let us add, that the common practice of setting these in the open, sunny border, is not a good one; they succeed best in a partially shaded aspect. The modest Liverleaf of the woods may be brought in to play an important part in the spring garden; also Blood-Root and other native plants. As to the sweet-scented violets, white, blue and double blue, we would set them in masses, but would also scatter single plants about here and there and everywhere, so that their delicious fragrance may regale the senses in all parts of the garden. A little forethought and planning will make many spring gardens much more attractive than they usually are.



Fig. 1.—ZINNIA ELEGANS.

### Annuals for the Flower Garden.

Any plant which perfects itself within a year from the time it is sown, is an "annual," though the term is especially applied to those ornamental plants which have this peculiarity. These, though lasting but a season, comprise many of our most desirable flowers. Some of them grow with the greatest ease, while others require much care and attention. The hardy annuals, once sown, will perpetuate themselves without further care. The ripened seed drops, and remains in the ground over Winter, giving earlier and stronger plants than are produced from seed sown in the Spring. Among these hardy annuals which will grow from self sown seeds are: Larkspurs, Mignonette, Sweet Alyssum, Candytuft, Portulaccas, Gilias, Whitlavia, etc. The half hardy annuals, such as Balsams, Phlox Drummondii, China Asters, Clarkias, etc., may be sown in the open ground in April or early in May, while the tender annuals should not be sown in the open ground until the last of May or the first week in June. To have them early they may be started in the house in pots or boxes, or in a hot-bed. Many persons fail in raising annuals, from sowing the tender kinds too early, and from covering the seed too deeply. The seed is to be sown—not buried. Having prepared the ground by spading in well rotted manure, and thoroughly pulverizing and raking, mark out with the finger, or a pointed stick, the form to be sown, scatter the seed thinly in the scratch thus made, and cover lightly by drawing a little earth over it with the hand. Poppies, Bartonias and some others should be sown where they are to flower, but most plants will bear transplanting and do all the better for it. Single flowers should not be tolerated where double varieties of the same kind are grown, as they will mix, and the seeds from them will be inferior. The old favorites, like Balsams, Asters, and many others will always be popular. They have been very much

improved within a few years; and only the finer kinds should be cultivated. The number of annuals is so large, and individual tastes differ so much in making a selection, that we only call attention to a few of those of decided merit, but which, though well known by amateurs, are not generally distributed throughout the country. We give engravings of a few of the newer sorts which have been tested. Each year a number of varieties are introduced with glowing descriptions of their beauty, and are often found, on trial, to be inferior to our old sorts. Having expended much money in trying novelties, we would advise our friends of moderate means to sow only those annuals which have been tested and found worthy of culture.

*Whitlavia grandiflora*.—This is a native of California; grows from 12 to 18 inches high, and

bears a profusion of blue, bell-shaped flowers. It does best in a poor soil and is perfectly hardy.

*Clintonia pulchella*.—A beautiful little tender annual, suitable for vases or hanging baskets; flowers blue, yellow, and white. The seeds are very small and should be very lightly covered. We give the name *Clintonia*, because that is the one by which it is known among seedsmen and florists. The proper name is *Downingia*, in memory of the late A. J. Downing. The name *Clintonia* belongs to one of our native plants.

*Clarkias*.—These are half hardy California annuals. Several species and varieties are in



Fig. 2.—CLARKIA PULCHELLA—DOUBLE.

cultivation as *C. marginata*, *pulchella*, *elegans*, etc. The double *C. pulchella* (fig. 2) is a rich rose color and very pretty. They all do well in a poor soil.

*Rhodanthe Manglesii*.—This has been for some time in cultivation. It is tender; from 12 to 18

inches high, with beautiful star shaped flowers, of a pure rose color. The flowers, being upon a delicate stem, droop so as only to show the under side, which is of a silvery gray. It belongs to a group, called "everlasting flowers." If taken off when they first open, they will re-



Fig. 3.—CALLIRHOE PEDATA.

tain their beauty for several years. They are desirable for winter bouquets. A new variety, *R. maculata* was introduced last year; it is larger than *R. Manglesii* and has a dark spot at the base of the ray florets. Both require a rich soil.

*Acroclinium roseum*.—Another "everlasting flower," and every way desirable. There are three varieties; white, rose, and deep rose. The plant is tender, and should have rich soil.

*Callirhoe pedata* (fig. 3).—One of the mallow family, from Texas, one of the best of the new annuals. Flowers, rich purple with a white centre. In good soil, and with proper cultivation, it will grow three feet high and flower for a long time.

*Centranthus macrosiphon*.—This is one of the annuals which look well in masses; grows about a foot high and is covered with clusters of pink flowers. A white flowered variety is very pretty. The two may be massed together.

*Salpiglossis*.—The different varieties of this should be in every collection. They should be started early and then planted in a rich spot.

*Schizanthus pinnatus*, *Priestii*, and others are half hardy and of great beauty. They grow about 18 inches high, and are covered with delicate white, rose, violet, and other colored flowers.

*Zinnia elegans*—double flowered (fig. 1).—If limited to but one annual, we should grow the double Zinnia. Next to the Dahlia it is the showiest plant in the garden. We have seen them quite as double and almost as large as the Dahlia. To keep them in perfection none but plants having double flowers should be allowed to grow. Select the best of such for seed. We have often purchased seed from the most reliable dealers, warranted double, and not one plant out of a dozen would grow double. Our experience is, that seeds from double flowers will produce single plants, unless the soil be very good, and the weather favorable. Seed sown one year, grew mostly single, coarse flowers; the next year some of the same lot of seed, on



better soil, and with more favorable weather, turned out nearly all double flowers.

*Ipomæa limbata*.—This is a great improvement on the old Morning Glory, with flowers twice as large, of a deep blue color with a white border. *I. coccinea* has bright scarlet, and *I. grandiflora* white flowers. The seeds germinate freely if soaked in luke-warm water. The seeds of the above may be obtained at the principal seed stores. A number of them have been given out in our seed distribution. We have no seed store, and only keep on sale a few appropriate books,



Fig. 4.—RHODANTHE MACULATA. (See preceding page.)

it being our aim to keep clear of all pecuniary interest in any article, that we may always speak and write with the utmost independence.

## THE HOUSEHOLD.

### Variety in Food Necessary.

We have from a subscriber, a very long communication, which he insists upon having published in the *Agriculturist*. He argues with more words than wisdom, that a plain, simple vegetable diet confined to one or two varieties of food, is the best, and the only natural one; and among other things, he says in illustration, that disease is far less prevalent in those parts of Ireland where potatoes are the chief food, and in India, where rice is the staple diet. First, let us say, that we can not accede to his demand, that his peculiar and personal views shall occupy half a dozen columns; the editors alone are responsible for the matter used, and their judgment must direct what articles will best meet the wants of the readers taken as a whole. The threat in this and other cases, that a subscription or two will be stopped, if their individual wants can not be attended to, is a small matter, and not involving the loss of four-pence ha'penny of profits any way.

On the subject of variety of food, a few thoughts may be useful. The human body is made up of different elements; its parts are continually wearing out, and food is required to replace the worn out portions. For example, we have the muscles or lean flesh, and upon the size and vigor of these muscles depends our ability to exert force. It is the contraction of the muscles which draws up the arm in lifting, or moves the legs in walking. The muscles are largely composed of what are called nitrogenous elements. There is a close resemblance in the composition of the muscles, and that

of cheese, the whites of eggs, or the gluten of wheat, etc. The lean flesh of animals, like beef steak for example, is of the same composition. It is certain therefore, that these and similar substances furnish the best nutriment or food material for supplying a man with muscles—making him strong. Without such food, he would soon become weaker than the rice eating natives of India, for they get some muscle-making nutriment in the rice.

The human body is kept warm by a process very similar to heating a stove. In the stove we place wood, or other fuel containing a good deal of carbon (coal), and the condensation of the oxygen of the air in uniting with it, gives out heat that was before latent. We eat food, containing carbon; after being dissolved in the stomach a part of it goes into the blood; the blood goes to the lungs and there receives oxygen from the air which acts upon the food or carbon in the blood and produces the heat that keeps our bodies warm. If we did not eat carbonaceous food, the body would soon become cold and dead. But as a safeguard against a cessation of the internal fire, through lack of fuel, as when food chances to be lacking for a time, or when sickness prevents the digestion of food, some extra fuel is always kept on hand in the form of fat which is stored up in cells, in larger or smaller masses throughout the body. When long deprived of food, this fat is all consumed, literally burned away to keep the body warm. Fat meats, butter, oils, starchy substances, like potatoes, fine flour, etc., are mainly composed of carbon or coal, and these constitute the best materials for supplying this kind of food, that is for keeping the body warm. The bones, or frame work, of the body are composed largely of mineral substances, mainly phosphate of lime, and as the bones are constantly diminished by absorption, bone-making food must be consumed, or the structure will tumble down for want of a frame. The phosphate of lime abounds in wheat, in milk, and is found more or less abundant in nearly all of the substances used as food.

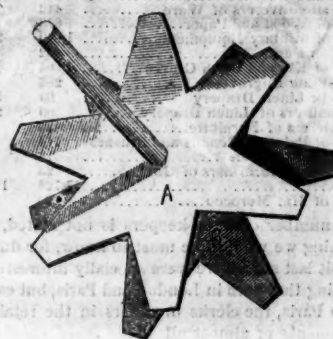
It is estimated that, on the average, the human system requires about seven times as much carbonaceous food to keep up its heat as of nitrogenous food to restore the wear of the muscles and tissues. The best food is that admixture which supplies the different elements in about the proportion required by the body. In colder weather, or when little physical exertion is made, the proportion of carbonaceous food required is relatively greater.

The combination required can be supplied wholly from vegetable substances. Wheat contains the different elements required by the muscles (in its gluten,) by the heating apparatus (in its starch and oil), and by the bones (in its phosphates). Rice and potatoes are mainly carbonaceous, heat producing, and require cabbage, milk, or other nitrogenous material for the muscles. The rice eaters of India are deficient in strength and activity. Children fed on rice, sago, tapioca, etc., require milk or meat. Eggs are mainly nitrogenous, and go well with fried pork (ham and eggs for example), which supplies the carbonaceous or heat producing elements. Beans and peas in like manner are appropriately eaten with fat pork, if not in such quantities as to overtax the digestion. Milk from fresh or nearly fresh cows, contains the different elements in about the required proportions; its casein (cheese) supplies nitrogen; its oil or butter supplies carbon; and its phosphates supply the bone elements.

A mixed diet, one containing all the elements needed for the different purposes required in the system, is the most natural, and most healthful. The best food is that containing the different elements in the needed proportions. The intelligent provider for the household, or rather for the table, will study the requirements of those who are to eat there, and adapt the food to their necessities by a proper variety, if she have a choice of materials.

As to whether it is desirable to confine ourselves wholly to a vegetable diet, there is this to be said: Vegetables are, as a rule, coarse compounds, requiring a considerable tax upon the digestive organs to reduce them to nutritious chyle in the stomach. A man living upon rice or potatoes with

plenty of cabbage would get the needed elements, but he must digest a large bulk of them. Another may get an equal amount of real nourishment by eating a small quantity of beef, eggs, or cheese, and a little oil, butter, or fat meat. The vegetable diet may do well for those having little to do but eat, digest, and sleep; active, energetic people, require concentrated animal food which supplies a great amount of nourishment at a little tax upon the digestive organs. Herbivorous animals have larger stomachs, and longer intestines, which extract a greater amount of nutriment from the coarser vegetable substances in passing through the body than can be done by the human organism.



A Good Churn Dash.

A subscriber, Dennis J. Bardwell, Winnebago Co., Wis., sends to the *Agriculturist*, the sketch of a churn dash, shown above, which he pronounces a cure for cream that will not give up its butter. It is simply two plates of wood, cut to the form shown, and fastened upon the upright handle, one at the bottom, the other three inches above it. The projections of one are opposite the indentations of the other. The dash is worked up and down in the old-fashioned way. This form is well calculated to cause a great commotion in the cream, which is continually forced against the edges of the projecting parts, and thus the butter globules are quickly broken. Mr. B. says from 6 to 10 minutes will now usually suffice to churn, where 30 to 60 minutes were formerly required with the dash in common use. The apparatus looks effective, and is easily tried.

### The Employments of Women.

This subject is becoming increasingly important, as the continuance of the war on so vast a scale is tending to the further inequality of the sexes. Tens of thousands of females will be deprived of the aid of those to whom in ordinary times they would look for support, and they will necessarily be thrown upon their own resources. There are many kinds of labor and business now performed by men which might be equally well if not better done by women. In the *American Agriculturist* for March, we referred to a new Work by Miss Virginia Penny, in which is given the results of extensive recent research and inquiry upon the subject of female employment. The information is not quite so definite as would be desirable, yet there are thousands of items regarding the different kinds of labor, the prices paid, the success of females in some kinds of labor, etc., which are interesting, and we think the circulation of the work will tend to awaken further inquiry. It will doubtless indicate to many females some new employment to which they may turn their attention. (Those desiring the book may obtain it through our book list, when not otherwise more conveniently accessible. See the advertised list on a subsequent page.)

From this book we learn that, according to the last census report (1860), there were only 285,000 females employed in the various branches of manufacture throughout the United States. This is a much smaller number than we should have expected to find. Miss Penny enumerates and gives some details concerning over 500 different employments

in which females are or might be engaged, and a large proportion of these come under the head of manufactures.

In 1848, when Paris contained less than one million inhabitants, there were employed in only thirteen branches of industrial labor, 112,891 women, 7,851 girls between the ages of 13 and 16, and 869 under 13. Over twelve hundred other occupations of females were officially reported. The following selections are interesting.

Occupation.	Men employed.	Women employed.
Boot and Shoe Makers.....	13,553	6,713
Makers of Shoes to Order.....	7,511	1,555
Chasers and Engravers.....	330	21
Gilders and Silverers of Ware.....	442	163
Gilders of Wood and Paper.....	878	329
Makers of Military Equipments.....	1,649	2,254
Dealers in Furs.....	232	399
Makers of Kid and Cloth Gloves.....	1,064	1,076
Copper-Plate Engravers.....	266	62
Dealers in Linen Drapery.....	80	8,974
Manufacturers of Linen Drapery.....	80	2,331
Embroiderers of Furniture.....	473	941
Makers of Painters' Pencils and Brushes.....	114	129
Feather Dressers.....	78	533
Polishers and Burnishers of Gold.....	23	284
Tailors.....	17,736	13,716
Makers of Hat Morocco.....	296	356

The number of shop-keepers is not stated, the very thing we would like most to know, for during our visit last season we were specially interested in observing that both in London and Paris, but especially in Paris, the clerks or sellers in the retail establishments of almost all kinds were chiefly females. A majority of the ticket sellers at the railway stations were also females; while in those saloons or eating and drinking houses where the lower classes of men were most apt to be found, men were employed as waiters, etc. An exception to this was seen in some of the beer shops of London, where well dressed and apparently modest females behind the counters were compelled to listen to the profanity and low language of drunkards and vile men. Throughout France the police regulations are so strict that females very appropriately occupy the railway ticket stations, and other public offices. We think that in this country there are tens of thousands of situations in our retail stores, and in ticket offices, etc., which might be occupied by women. The habitual respect and courtesy here shown to women, would protect them from insult, and perhaps a well dressed, well behaved woman in many of our public offices would tend to make them less the resort of boisterous men. In this city there are certainly many thousands of men becoming effeminated by standing behind the counters dabbling in tapes, silks, and ribbons, who should give place to women, and themselves go forth to the sterner employments of man.

Another thought in this connection. There is an increasing demand for fruits and flowers, and may not these be more cultivated by females than they now are? Near our cities and large villages especially, many a widow with her dependent family, might, from an acre or two of grapes and other small fruits, derive a livelihood. The training of the trees and vines, their protection from insects, etc., are appropriate work for women and children, far more healthful and invigorating, than the now "everlasting stitch, stitch, stitch," which is thought to be about the only work a dependent woman may do for others, with credit to herself.

For the American Agriculturist.

### Hints on House Cleaning.

The first place to attack is the cellar. It should not be neglected, because "nobody will see it." Neatness is desirable for its own sake. A well kept cellar is essential for health as well as comfort. No person of common sense would think of building a dwelling over a swamp hole: yet many are living over cellars which are little better. The dampness from want of ventilation in that department, and the effluvia arising from decaying vegetables, are undoubtedly frequent causes of fever and ague. It is preferable to have the main portion of potatoes, roots, cabbages, etc., stored in a cellar apart from the house, and to bring in a supply occasionally as needed. But let everything be thoroughly over-

hauled now, and all decomposing substances removed. Clear out every unoccupied box and barrel. Rout the spiders that have curtained the windows and festooned the beams overhead. Stop all rat holes, and repair places which they have gnawed. Caustic potash, or chloride of lime, scattered near their haunts, are said to be efficacious in driving them away. A good floor of cement is an excellent preventive of their sapping and mining. After a complete clearing out, give the walls and ceiling a good coat or two of whitewash, and when all things are "set to rights," it will be a pleasure to enter what is usually the most repulsive part of the domicile. The garret will next claim attention. Not a little dust will be found quietly resting there, having taken refuge from continued assaults with the broom in the lower rooms. Before disturbing it, pack away all extra bed clothing, woolen garments, and other apparel not needed for present wear. Tight trunks or boxes will keep them safe from moths, if they be occasionally taken out and thoroughly beaten. Do not suffer an accumulation of rubbish in the garret. If an article is useless, it will not pay to store it; sell it, give it away, or burn it.

Before commencing with the other rooms, go through the pantries and closets. Clothes closets should not be neglected. Moths seek dusty, lousy corners for breeding. Sweep and whitewash the walls, scrub the wood-work, and stop all cracks with mortar or putty. Rooms should be gone through with in order, commencing at the upper stories. There is no need to let even the good man of the house know that this operation is going on. Undertake no more at a time than can be well finished in one day, and the grand domestic revolution witnessed every Spring in some households may be avoided.

AN OLD HOUSEKEEPER.

### Washing Cotton Comforters.

"Economist" writes to the *Agriculturist*, that comforters can be made so that the cotton may be easily removed before washing. Her method is to place a layer of cotton between the calico, and tie it at points about six inches apart with coarse knitting cotton doubled. The needle is run through the whole thickness of calico and cotton, then returned, and the thread fastened with a knot. After the cotton is all properly secured, the edges of the calico are sewed together with a running stitch. When soiled, the threads are easily drawn from the edges, the ties are cut, and the cloth is removed and washed, leaving the cotton in a continuous sheet, ready to be replaced when the calico is cleansed. She says this can be done in less time than by washing the whole together, and the cotton will remain lighter and more comfortable, than it could be made by whipping after washing.

### Mixed Cotton and Woolen Stockings.

#### A HINT TO MANUFACTURERS.

It is rather surprising that the improvement upon woolen stockings mentioned in the April *Agriculturist*, (page 118), should not have been adopted by manufacturers in this country. A valued correspondent "A" writes on this subject: "I found such stockings very common in Denmark and Russia thirty-seven years ago, and presume they are common all over the north of Europe; and probably from time immemorial have been thus knit, or with linen and woolen thread as you recommend, now cotton is so dear.

"Pure woolen stockings, I have given up wearing for many years, for I cut holes through the heels and toes of the strongest in three or four days—they doing me very little service. As I cannot find in our country the mixed woolen and cotton, I wear in the winter thick, coarse cotton, and find these answer well, though I would prefer woolen if they did me any kind of service. I used to have a piece of stout cotton cloth sewed over the heel of my woolen stockings; but there were two objections to this; it made the stocking too thick and bungling at the heel, and the cotton cloth would not shrink

evenly with the woolen stocking, which thus caused wrinkles very uncomfortable to the heel."

### To Prevent Stammering.

J. T. Hassett, Summit Co., O., writes to the *Agriculturist*. "When children see anything remarkable (in their view), they are always in a great hurry to tell of it, and often the words crowd to the tongue faster than they fall from it, which induces stammering. On such occasions, the parent should instantly hush the child, until its excitement is over, and then give it the privilege to make the relation calmly." This is a good suggestion. It is known that an inveterate stammerer can be cured by practising some method which requires him to speak deliberately and in measured time. Some "Professors" who cure stammerers, require their pupils to beat time with the finger at each word, the same as in singing, and in this way the habit of control over the organs of speech is acquired. But prevention is always better than cure, and a little care at the first will entirely break up the tendency to stammer, which children often have.

### "Hulling" Beans before Cooking.

MR. EDITOR: In response to your suggestion in the *American Agriculturist* last month, in reference to the very nutritious quality of beans, and their indigestibility unless the skins are broken so as to allow the gastric juice to act upon the inner portion, I send you my wife's mode of cooking them. I will premise by saying that for many years we have raised for our own cooking a small, bright, white pole-bean, planted with corn. The corn stalks support the vines, and do not appear to be in the least injured by them.—Before cooking the beans, they are hulled with lye from wood ashes, just as we prepare corn for what is called "lye hominy." There need not be the least taste of the lye left upon either beans or corn. Beans thus prepared speedily cook very tender, and make a wholesome and delicious dish, either as soup or mashed. G. M.

Hancock County, Ind., March, 1883.

### Hints on Cooking.

**How to Cook Asparagus.**—Cut the stalks when 6 to 12 inches high, and wash if needed. Some break the stems into short pieces, and others tie them whole in little bundles, a few stalks in each. They are then boiled in water slightly salted, for 25 to 30 minutes, and dipped out and drained. Lay toast in the bottom of a dish, and spread the asparagus over it. Pour over the whole a full supply of drawn butter, or what is better, gravy made of milk and flour—cream instead of milk makes it still richer. Add salt enough to season it. The good quality of the dish will much depend upon the skill exercised in making the gravy. If eaten in large quantities, asparagus is diuretic, though producing no serious injury. In moderate quantity it is not only palatable and moderately nutritious, but believed to be healthful.

**Cheap Vegetable Soup.**—Contributed to the *Agriculturist* by M. H. B. France, Susquehanna Co., Pa. Peel and slice a quart bowl of potatoes with two or three onions, and boil tender. Stir three tablespoonfuls of flour into cold water and add to the potatoes, with butter the size of an egg. Pour in water sufficient for four quarts of soup and season with pepper and salt to taste. Add a pint of dry bread or biscuit, boil a few moments and serve.

**Mrs. Bunker's Soup.**—A young housekeeper requests that Mrs. Tim Bunker will please communicate, for the benefit of the inexperienced, how to make that soup which her husband writes about with so much gusto, on page 87 (March No.).

**A Dish for Hard Times.**—M. A. Johnson, Grasshopper Falls, Kansas, sends to the *Agriculturist* the following directions for cooking a



dish, which the says was found economical during the long drouth in that State a few years since. "Cut two ounces of lean bacon, or a red herring, in pieces, put it into a pot, with three onions, a few pepper corns, and a small bundle of thyme and parsley, and three pints of water; let it boil three quarters of an hour. Then add to it one pound of clean picked whole rice, and let it boil just three minutes (no longer). Take the pot from the fire, and let it stand by the side of it, and the rice will swell, and take up all the water, and become quite soft. If properly done, it will weigh nearly five pounds, and will completely dine five men. If the rice be not sufficiently tender, a little more water may be added as it stands by the fire. This is a cheap and excellent dish."

**Corn Bread without Milk.**—Contributed to the *Agriculturist* by "Aunt Prudence," Tuolumne Co., Cal. On  $\frac{3}{4}$  pt. of corn meal, pour  $1\frac{1}{2}$  pint boiling water, to which add two heaping teaspoonfuls cream tartar, one of salt, and  $\frac{1}{2}$  cup of molasses and let it stand all night. In the morning add  $1\frac{1}{4}$  pt. of flour before it is sifted, and one heaping teaspoonful saleratus, well dissolved in  $\frac{1}{2}$  pt. of cold water. Turn this into a tin pail thoroughly greased, and place the pail immediately in boiling water, and continue the boiling two hours. The cover of the pot should be wrapped in a clean cloth to absorb the moisture, which would otherwise drop from the cover into the pail and spoil a portion of the bread.

**Transparent Pies.**—Contributed to the *American Agriculturist*, by A. Thompson, Pendleton Co., Ky. Take 3 eggs, 2 tablespoonfuls of sugar, 1 teaspoonful of rich cream, 3 tablespoonfuls of jelly, 1 of butter, flavor with essence of lemon. The fairer the jelly the better, as it makes a nicer looking pie than dark jelly; either makes a delicious article. The above ingredients are enough for two pies. [From the absence of explicit directions, we suppose the materials are to be mixed, enclosed in crust, and baked in the ordinary way.—Ed.]

**Hint on Boiling Potatoes.**—"Aunt Prudence," writes to the *Agriculturist* that old and very poor potatoes are greatly improved by paring and soaking them in cold water for several hours previous to boiling. Good potatoes should be cooked without peeling.

**Queen Victoria Pudding.**—Contributed to the *American Agriculturist*, by M. Crane, Wis. Take one cupful each of flour, sugar, grated apples, grated carrots, finely chopped suet, and dried currants; season with one teaspoonful of salt, a little nutmeg and essence of lemon. Mix all well together without water, and tie it in a wet cloth. Place it in boiling water and cook two hours, or longer if the pudding be very large.

**Milk Pudding.**—Contributed to the *Agriculturist* by "C. B. D." Add to one quart of boiling milk, one teaspoonful of flour wet to the consistence of cream; when well cooked, mold in cups, turn out when cold, and dress with cream, sugar and nutmeg.

**Fruit Cake.**—Contributed to the *Agriculturist* by Mrs. C. Moore, Washtenaw Co., Mich. Mix 2 beaten eggs, 2 cups of sugar, 4 of flour, 1 of sour cream, 1 of butter, 1 tablespoonful cinnamon, 1 teaspoonful cloves, 1 of soda, 1 pound raisins chopped fine. Bake in a slow oven.—*Iceing for the same.* Beat the whites of two eggs to a froth, add  $\frac{1}{2}$  pound of powdered white sugar, beat from 8 to 10 minutes, and apply when the cake is nearly cold.

**Apple Fritters.**—Contributed to the *American Agriculturist* by James Bricker, Indiana Co., Pa. Take any large sized apples, except sweet, pare them and cut them into circular pieces about one-fourth of an inch in thickness, at the same time taking out the cores with a sharp pointed knife. Make some batter of wheat flour as for common griddle cakes, drop the sliced apples into it, have ready a deep griddle or spider into which put about half a pint of lard. When it is hot, with a large spoon drop the apples into it; to be eaten while warm.

## BOYS & GIRLS' COLUMNS.

### Judge not from Appearances.

A few years since a party of ten or twelve clergymen went on an excursion on South Bay, Long Island. They had been cooped up in the city during the year, and wisely thought a week or two of recreation would prepare them to work with more vigor. They were dressed for the occasion with coarse clothing, thick boots and straw hats. They hired a sloop, and enjoyed themselves highly for a week, sailing up and down the bay. When Saturday night came, the sloop was anchored near a small village. In some way, a few of the inhabitants learned who they were, and the next morning a committee invited each of them to preach in one of the neighboring churches, which they accordingly did, to the great gratification of the villagers. On Monday, one of the number who was cook for the company, went ashore to buy some milk and eggs for breakfast. He stopped at a farm house, and stated his errand. "I've no eggs nor milk to sell," said the lady of the house. She spoke quite short, and with a scowl that seemed to say, "I don't want to deal with a suspicious looking man." The coarse coat, somewhat blackened by cooking, the tattered straw hat, and sunburnt face certainly were not prepossessing. After a little parleying she asked "Who are you in that boat?" "We are a good set of fellows, having a little fun," was the reply. "Humph, I should think so," said the lady. "Have you got any rum on board?" added she spitefully. "Why madam, we are a company of ministers." "I guess you'll make me believe that" was the answer. "I believe you heard me preach yesterday," quietly remarked the gentleman. "Why, is that you?" exclaimed the woman throwing up both hands. "You shall have all the eggs, and all the milk, and any thing else you want." And after that there was nothing lacking in her hospitality. The clergyman gave her a gentle hint that clothing was not always a safe standard by which to judge of a man, and left her, greatly amused with the incident.

### A Faithful Dog.

A tanner had a large mastiff to guard his premises from thieves. The foreman of the yard regularly fed the dog, and the two were on the best terms. The owner suspected the foreman of dishonesty, and discharged him. In this he was probably not mistaken, for a few weeks after the man determined to steal a load of hides during the night. He knew the premises perfectly, and felt sure his old friend the dog, would offer no resistance. He accordingly drove a cart near the fence, climbed over, and threw the hides, one by one out of the enclosure. The dog appeared pleased to see him, and did not offer to prevent his operations. When the man was ready to go, instead of unbolling the gate and passing out, he started to go as he had entered, climbing the fence, so as to leave no clue by which he might be detected. This unusual proceeding aroused the dog's suspicions, if such a term may be applied to an animal's ideas. He at once sprang upon the thief, seized him by the leg, and held him until the owner came to his assistance and secured the culprit.

### Curious Sentence.—Translation.

Prof. E. North, of Hamilton College, N. Y., contributes the following concerning the curious Latin sentence, "*Sator arepo tenet opera rotas*," which was published in the *Agriculturist* on page 57, (Feb. No.) "This double palindrome (word or sentence reading backward and forward the same), is one of the most curious results ever brought about by the use of words. Notice that you may read four ways, and the sentence is the same. In translating put a colon after *arepo*. "As a planter I move slowly: industry checks the wheels."—This is a clumsy paraphrase of the familiar proverb, *festina lente*, "make haste slowly." The sentence is itself a good example of what may be accomplished by making haste slowly. Who can tell us the author of this scholastic curiosity?"

### The Game of Matching Pairs.

Not unfrequently when a company meet to spend an evening, it takes considerable time to get them mingled together. We have seen the gentlemen collect in one corner and the ladies in another, and not more than half enjoy themselves until some one of sufficient tact had distributed them more naturally. A correspondent of the *Agriculturist*, "Jim Hop Along," having been thus situated, after some study, has hit on the following game which will serve admirably to "break the ice," and produce some merriment. Cards or bits of paper are numbered from one upward to correspond with the number of gentlemen present, and another set of smaller ones are similarly prepared for the ladies. The two sets are first shuffled separately, and one given to each person, who must keep his or her number secret. Then a gentleman starts to seek his fortune. Approaching any lady he may

fancy, he bows and presents his card. Should the number on her card correspond with his, he salutes her and takes a seat by her side, and the next person on the right proceeds to make a choice. But if the first gentleman be unfortunate, the lady returns his card, gives him her seat, and starts to seek her own fortune, as he had previously done. The company soon become interested in the game: there is no little fun over some of the pairs thus brought together. After all are matched, if desired, the numbers may be shuffled again, and another trial made."

### New Puzzles to be Answered.



No. 37. Illustrated Rebus.—A poetical quotation.

No. 38. Problem by J. W. Robbins, Tioga Co., N. Y. How can fifteen sheep be enclosed in four yards, so as to have an odd number and a different one in each yard?

No. 39. Arithmetical Problem.—Three men, A, B, & C, dug a ditch 100 rods long for \$100. The ditch being deeper at one end than the other, A, took the deepest part and got 20 cents per rod more than B, who took the middle part; and C, took the shallowest and received 20 cents per rod less than B. Each man received \$33 $\frac{1}{3}$ ; how many rods did each man dig?

**Answers to Puzzles and Problems in April No. (page 121).—No. 35. Illustrated Rebus.**—"Doe toothers as they hood dot ou." Or do to others as they should do to you. No. 36. Problem.—Answer: The clocks will show the same hour at 12 o'clock on April 15.

The following have sent in correct answers to recent puzzles and questions; the numbers indicate the problems answered by each: Annie J. Hooper, 29; H. A. Collins, 31, 32; John R. Wilkinson, 30; W. Nellis, 32; John Lee, 33; Nathan Tyler, 31, 32, 33; James D. McGiffert, 31, 33; Howard, 33, 34; Thomas D. Smalley, 33; Geo. C. Comstock, 31, 33; Noah S. Barnum, 31, 32; Little girl, 32; Israel C. Rinehart, 31, 33, 34; Calvin B. Bradley, 30; David Sheaffer, 31, 32, 33, 34; Joseph Kerschler, 33; Purinton Maryott, 33; Geo. Wistart Kirk, 31, 32; Samuel F. Lazear, 33, 34; Fred. Taylor, 33, 34; L. C. Pancoast, 31, 32; E. D. Hewitt, 33; "J. K. J.," 32, 33, 34; W. F. Grant, 33; Daniel S. Carver, 33; C. P. Hoffman, 31, 32, 33; Marcello Hutchinson, 31, 32, 33, 34; E. C. Maderwell, 31, 32, 33; "Georgius Rex," 31, 32, 33; J. W. McCulloch, 31, 32, 33, 34; Mary E. Parlin, 31, 32, 34; Frank B. Conger, 31, 32, 34; Orlando Vaughan, 31, 33, 34; Chilton Conger, 31, 32; George Sawyer, 31, 32, 33, 34; James H. Hamer, 32, 33, 34; N. Lewis, 33; John F. Holmes, 31, 33, 34; Maria A. Rotch, 31, 32, 33, 34; B. B. Edwards, 32, 33, 34; F. & L. Burke, 32; Joseph Post, 31, 32, 33; Wm. H. Bates, 31, 32, 33, 34; L. W. Stillwell, 31, 33; Cornelius Hoagland Jr., 32, 33; A. B. Foster and W. A. Vaughan, 32, 34; Ella E. Badger, 34; B. K. Mellick, 31, 32; F. M. Swan, 31, 32, 34; "H. F. C.," 31, 32, 33, 34; Charles Foster, 33; Josiah C. Britton, 33; Charles S. Edsall, 31, 32; A. S. Fradenburgh, 31, 33; Schuyler Duryee, 33; Frank E. Ferris, 33, 34; J. D. Rider, 33; Alice R., 31; Robert W. Steere, 32; Willie Staples, 33; Lansing L. Porter, 32; N. S. Barnum, 34; L. D. Hays, 31, 32; Alice E. Bradley, 34; S. B. Hulbert, 33; Charles R. and Ellen F. Cole, 31, 32, 34; Isaac D. Sharp, 33; Allie Decker, 31, 32; G. W. Holstein, 33; Mattie J. Taft, 32; M. Thompson Jr., 31; George Brown, 31; J. S. Coles, 31, 32; "W. W.," 32; S. Sheppard, 31; Watson Dewees, 32, 33; K. G. Whelen, 31, 33, 34; Cale W. Waterman, 31, 32; S. M. McCausland, 31, 32; Isaac F. Mills, 31, 32, 33; Emma Coon, 31, 32; E. C. Hutchinson, 32, 34; M. Seongale, 31, 32, 33; "W. G. J.," 31, 32; G. W. Litchfield, 33; J. Newton Stauffer, 33; Wm. E. Woodell, 33; Theodore D. Schoonmaker, 33; Agnes J. Sawyer, 33; S. D. Merrill, 33; "J. H. A.," 31, 32, 33; Rufus W. Weeks, 31, 32, 33, 34; Robert G. Weeks, 31, 32; George F. Weeks, 31; "L. B. P.," 31, 33; G. W. Sarson, 33; G. F. Butterworth, 33; S. N. Dater North, 31, 32; Howard Himmelwright, 32; H. A. Lamb, 31, 32; "C. W. R.," 32; George A. Barnard, 31, 32; H. Bowers, 33; Samuel L. Henderson, 32; Wm. C. Johnson, 33; Celia Trew, 31, 32; "Brushy Valley," 33; Johnny T. Dickerman, 31; Allen Terrell, 33; James Cock, 33; Lizzie McMichael, 31, 33, 34; Wm. J. McMarrigal, 31; Bell Ruffin, 31, 34; "B. K. H.," 31, 32; L. L. Fisher, 31, 32, 33; Henry H. Osgood, 31, 32, 33, 34; James S. Harold, 32; "A. T.," 31, 32, 33; L. O. Gay, 33; Mary J. McMillan, 31, 33; Hiram Mitchell, 33; Henry Martin Kellogg, 33; "E. S.," "A. R.," "A. P.," "M. W.," "J. P.," "C. B.," "S. R.," "A. C.," 34; Howard Colburn, 33; R. R. C. Grantham, 33; Alvin Hammon, 31, 32; Edmund B. Newton, 33; M. R. Alexander, 33; J. H. Ford, 33; Sarah A. Glaze, 33, 34; Albert D. Rust, 31; S. Emma Barker, 33; Isaac T. McLain, 33; V. Litzle, McClure, 33; "Vic.," 31, 34; Wm. P. Daves, 33; John M. Creswell, 33, 34; James Mowry, 33, 34; John Farquhar, 32; John Green, 31; Nettie Spink, 34; Mrs. C. A. Snook, 31; Albert C. Siewers, 31, 32; Alex. L., 31, 32; H. Waters, 33; Jacob Lanley, 31, 32, 33.

## Boys' and Girls' Garden—No. 2.

The articles under this head have an important end in view. We expect, by gradual, easy steps, to teach those who read them, some important and useful lessons, to lead them to become closer observers of the wonderful things in the natural world, and thus add greatly to the interest of their future lives. Some of you may become skillful botanists before you know it. We hope every one will follow our suggestion, and sow the seed as we recommended, and apply the description to the plants themselves. Study these articles enough to become familiar with the few apparently hard names we introduce. Please learn the A B C's, and you will soon become interested readers. Read the review ending this chapter.

—In the last number, we told our young friends what seeds to plant, and probably many have them already in the ground. There is no need to be in a hurry, for any time in May will be early enough to sow them. The Sweet Peas and Morning Glories should be put where they can have strings or brush to run upon, and the Musk-melon should have room enough to spread itself on the ground. The seeds be-

ing in the ground, we must now wait patiently for the plants to show themselves. After a while—which will be longer or shorter, according to the weather, and the depth to which the seeds were covered—the ground will break and the little plants will push through, and all but the Peas and Oats will spread out two little leaves to the light and air. If there are plenty of plants of the Melon, you can afford to take up one or more carefully, and you will find it will look as in fig. 1. It has root, stem, and leaves, and though very small, it has all that a plant needs to enable it to grow. Wonderful indeed have been the changes which have been going on in the dark ground; a little dry lifeless looking seed was put in the earth, and now we have a living plant. Before we watch the growth any further, let us see what has been going on out of our sight, and where this plant came from. Take a piece of cloth and wet it and fold it a few times so that it will lay on a plate or saucer; put a few of the Melon seeds between the folds of the cloth, cover with another plate or saucer, and keep it in a warm room. We have now the seeds in very much the same condition as they are in the soil, they have warmth, moisture and air, and all these are necessary in order that the seed may grow. The seed soon begins to swell and in a day or two, the skin or seed coat will break open, and a little point of stem will be seen pushing itself out of the crack. This stem will go on increasing until it gets to be several times longer than the seed, (fig. 2.) The seed-coat will be pushed off and the two seed-leaves will show themselves. If the cloth has been kept moist, we shall get in this way a little plant just like the one which grew in the ground, except that it will have no roots, (fig. 3.) It will be noticed that this plant all came out of the seed, for we have given it nothing but water. Now, what was in that seed at the beginning? We must pick it open and find out. Let us take a melon seed and soak it until it becomes a little softened, and then pick its coat off carefully. We shall find inside of it two little leaves, rather thick and plump, joined together by a very short little stem, (fig. 4.) A little plant then is really packed away in the seed, only differing from the plant in fig. 3, in the length of the stem. This is the embryo.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.

joined together by a very short little stem, (fig. 4.) A little plant then is really packed away in the seed, only differing from the plant in fig. 3, in the length of the stem. This is the embryo.

Now as quite a growth takes place when it is not in the ground it is plain that all the material for this growth must have been provided beforehand in the seed. This is really the case. The two seed leaves are thick from being filled with food which is to enable the plant to make

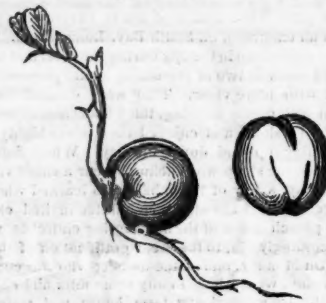


Fig. 5.

its first growth—which is to push out the little stem. If the seed is in the ground this stem lengthens; the lower end pushes downwards, and the other end works its way to the surface. The plant can make its growth, thus far, from its store of food, but roots soon start from the lower end of the stem, by means of which it can draw nourishment from the soil. Now we have described the plant thus far without the help of any unusual words, but as there are terms which are used to express the parts, we may as well know what they are. The little stem is called the *radicle*, and the seed-leaves are called *cotyledons*. The *cotyledons* or seed-leaves are unlike in shape to those which will follow them, but they are nevertheless leaves. In many plants they fall away after other leaves appear, but in the melon they will grow large and remain for a long time. We find that the leaf in this case is made to do two things; while it is in the seed it serves to hold food for the first growth of the plant, and afterward it comes to the light and air, and acts like other leaves in helping the plant to grow. Our little Melon plant has at first only a pair of leaves, but soon a little bud will appear between them which contains the leaves that are to follow. This bud is called the *plumule*, (fig. 7): It is to be found ready formed in some seeds, and can be easily seen in the bean.—Let us now see how some of the other seeds are getting on. The Tomatoes will be likely to be rather slow in coming up, but after a while their long seed-leaves will make their appearance. The Peas will seem quite unlike the rest in their way of growing, and you will watch in vain for the seed-leaves. They are there hidden underground, and if one is dug up, the two *cotyledons* will be found, but so filled up with food for the young plants, that they will never be able to serve as leaves above ground, so they remain below and give up their nourishment to the plumule which grows rapidly, (fig. 5.) The right hand figure is the pea, with its skin off, showing the radicle; and the left hand figure shows the radicle and the plumule growing. The Four O'clock and Morning Glory will show two seed-leaves when they come up, which will look more like leaves than those of the Flax and Melon; they are very thin—too thin to have held much food for the young plant: still the food is stored up in the seed, but not in the embryo itself. Place some of the Four O'clock seeds in a wet cloth until they begin to sprout. Then break them open and carefully remove the embryo plant—it will be found carefully rolled up and coiled around a little ball of what appears like flour. A seed cut in two will look like fig. 6—where the dotted part represents the floury portion with the embryo coiled around it. Now this little mass of flour is put here for just the same purpose that the matter which thickens up the seed-leaves of the melon is put in them—for food to enable the little plant to grow until it makes roots, and can get along without this help.—Here the same thing is done in two different ways. In the melon the food is placed in the embryo, and in the Four O'clock it is outside of it. When the food is not in



Fig. 6.



Fig. 7.

the embryo, it is called *albumen*—and we have already seen that some seeds have albumen and some do not. The Flax, Melon and Pea, have no albumen, while the Four O'clock, Morning Glory, Tomato and Oat have. The albumen of the Morning Glory is not floury like that of the Four O'clock, but when wet appears like jelly. We have not space to show how the embryo is arranged in different seeds, but that can be learned by and by. When the oats come up they will not show seed-leaves, nor will you be able to find them by digging down as in the case of the pea. The seed of the oat is small, and its embryo much smaller, and it requires a good magnifier and some skill to be able to see it. So you will have to rely upon our engraving to see how the embryo Oat (fig. 8) looks.—Fig. 8 shows the embryo at the lower part of the albumen, and fig. 9 shows the embryo separate; instead of two seed-leaves, there is but one, and this is coiled around, showing the plumule above, and the radicle below. This one seed-leaf never comes to the surface. All the other plants we have mentioned have two seed-leaves while the oat has but one. This difference does not appear very important to you, perhaps, but it is a distinguishing character of two very distinct classes of plants—differences which are seen in the embryo, and as the plant grows are found in all its other parts. Now, as the distinction between those which have two seed-leaves is an important one, perhaps you will go to the trouble of learning the names by which they are called in the books. Those with one seed-leaf, or cotyledon are called *mono-cotyledonous* plants. *Mono* meaning one. Those with two cotyledons are *di-cotyledonous*. *Di* means two. You must not be discouraged at these names, for we shall not have occasion to use many such hard ones.—The plants being fairly up, the plumule or little bud soon appears; it is soon lifted above the seed-leaves, a leaf or two leaves open—another bud appears above these and so the plant goes on to increase in length. Down in the soil the roots are increasing in size and number to keep pace with the growth above ground.—But we have given you quite enough to observe in the little garden for the present. When you have seen how the seeds start there, it will be interesting to watch other seeds which the older people have planted, and see that they, though differing in appearance from yours, are all growing upon the same general plan.

**Review.**—1. Don't neglect to start some of the seeds. The above pictures are exact copies of growing seeds, started in a folded towel, and kept moist and warm between two plates, a few days in the *Agriculturist* office.

- 2.—What is the embryo?
- 3.—What is the radicle?
- 4.—What are cotyledons?
- 5.—What is a plumule?
- 6.—Where do cotyledons of peas grow?
- 7.—What is the albumen?
- 8.—Which of our seven chosen plants feed on albumen?
- 9.—How do the others feed?
- 10.—How does the albumen of the Morning Glory differ from that of the Four O'clock?
- 11.—Have oats any seed leaves or cotyledons?
- 12.—What are mono-cotyledonous plants?
- 13.—What are di-cotyledonous plants?

## A Farmer Without Arms.

W. M. Beauchamp, Onondaga Co., N. Y., sends to the *American Agriculturist* an interesting account of a farmer he formerly knew, who was born without arms. "Instead of appealing to the charitable for support, he commenced early to help himself. His first property was a hen and chickens, next a pet lamb, and afterward a shaggy colt. He took good care of these, and increased his stock, a little at a time, until he became a prosperous farmer. Having no hands he learned to use his toes, which were longer than common. His legs were also very flexible, and by practice he was enabled to readily perform most operations with ease. He put on and took off his own clothing, shaved, and fed himself, milked his own cows, and took part in most labors of the farm. He was a terror to evil doers, whom he could punish with severity. He was powerfully built, and possessed of great strength in the head and shoulders. He would butt like a ram; or seize an offending urchin with his teeth, and shake him with bull-dog tenacity. He died at the age of seventy, leaving a large family—having been married three times."

**A BEAUTIFUL REPLY.**—A lady in Switzerland, addressing a peasant who was working in his garden very early in the season, said, "I fear the plants which have come forward so rapidly, will yet all be destroyed by frosts." "God has been our Father a great while," was the reply.

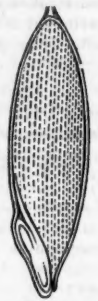


Fig. 8.



Fig. 9.



### Question About Robins.

We had always supposed that robins returned regularly every Spring to build their nests in the neighborhood they had frequented the previous year. A recent English writer thinks differently, and even believes the parent birds may be killed off by the young ones when they have grown to mature robin-hood. He says: "This is a subject which has occupied my attention for several years; and, although I have not arrived at any satisfactory conclusion, my experience may not be uninteresting. I have for the last four years had one, if not two, tame robins, each year, but never more than one on the same part of the premises, and never the same bird for two years. One has located itself in the shrubbery, and the other in the garden or orchard. My proceedings have been as simple as possible. When I first observe a young robin, I throw it a bit of bread, calling at the same time, 'Tom! Tom! Tom!' I gradually diminish the distance to which I throw the bread, until in a very few days the robin will come at the call of 'Tom,' and, eventually, will feed from my hand as I sit on a garden seat. I am generally away for about five weeks at Christmas, but Tom is sure to be ready to greet me on my return. When pairing time comes, my *protege* introduces his or her mate, as the case may be, and then I have two visitors for a time. I know when they have hatched their brood, because then the birds fly away with their bread, instead of eating it on the spot. None of my pet birds have ever built within my own premises, but still they continue to come for their daily portions, until the young have left their nest. Then a change seems to come over them. The mate disappears altogether, but my own pet still comes to be fed, but is not so domesticated with me as before; and whenever a young robin makes its appearance, it seems furious at the sight of the old one; and, as the former acquires strength, it appears to quite terrify the parent bird, and before the Autumn sets in I lose my old companion, to go through the same phases with its successors. Two years ago, after the old robin had been absent for some weeks, I noticed it in the orchard—its own walk had been the shrubbery—and called as usual, 'Tom!' The bird came and took a bit of bread from the garden seat; but as it was making off to a distance to enjoy its repast, a young robin flew at it with violence, chased the bird out of bounds, and I saw it no more. This robin was conspicuous for a white feather in one wing, so that I could have detected it amongst many. From the above, I can only come to the conclusion that the old robins either die a natural or a violent death, or migrate to some other locality. If one robin has a peculiar haunt, a robin, but not, I am convinced, the same bird, will ever be found in the same place; but seldom, if ever, more than one."—It would be very interesting for our young friends to try and decide this question by observation. We think that our favorite bird must have been slandered by supposing him capable of parricide.



A Shadow Picture.

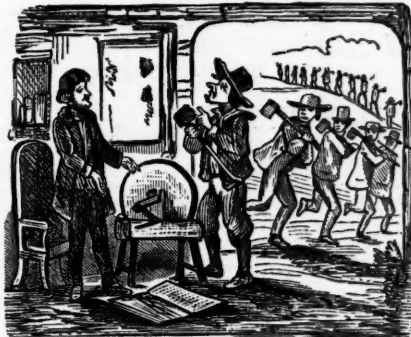
This picture is not a very handsome one, to be sure, but if properly managed, it may produce some amusement. Copy it upon a piece of stiff paste-board, and then with a sharp knife cut out the unshaded parts. It can be done easily by laying a piece of thin paper over this engraving, and marking the outlines of the white parts. Then paste this smoothly upon the paste-board, and follow the lines with the knife. Leave the edges of the cut square and smooth. When finished, hold it between

a strong light and the wall, or some other white, plain surface, and the shadow will give a fair representation of a highly wrought dandy. This design, with several others, was contributed to the *Agriculturist* by Letty Ermin.

### The Agriculturist Grind-stone.



I say, mister Editor, will you please grind my axe?  
Editor—Yes sir, with pleasure, if it be a good one.



Hi! hi! Look Here! You have ground the edge all off.  
Editor—That's because it was not made of true stuff. It's fixed now so it won't hurt anybody. Whose turn next?

### Notes on "Vineland Lands."

On our way home from Washington, March 5th, we stopped over a day at Philadelphia, and made a flying visit to "Vineland," not so called from any abundant native growth of the vine, we suppose, but rather because it is hoped the vine may be made to grow well there, or because the name itself is a euphonious one. The trains for the day only admitted of a stay of 2½ hours—too short a time to canvass the merits of a large tract of land, though we made the best possible use of the time, and walked or run several miles, and with the assistance of a man with a spade, and by the examination of cellars and wells being dug, and a few tilled plots, we gained some idea of the character of the soil. We purposely avoided interested parties, preferring to see the plot rather at random, than to be guided to any particularly favorable location. The tract lies about 35 miles directly south of Philadelphia, and appears to have lain idle for many years at least, and little of it has ever been tilled. The location seems to be a healthy one. The surface is rolling, rather more uneven than most of our Western prairies. It is covered with a shrubby oak underbrush, with here and there small pines, and the stumps show that from time to time a scattering growth of smallish oaks has been cut off. A railroad from Philadelphia, to be extended to Cape May, and already nearly opened there, brings Vineland within easy distance of Philadelphia. The tract is well laid out, and the title appears to be good, which cannot be said of all the new lands offered, in the vicinity of this city at least. The soil is sandy, too much so for profitable culture without free manuring. The surface is not so pure a sand, as some of the wild lands on Long Island, and so far as we examined it, the underlying gravel and pure sand strata do not come so near the surface. On this account, it will be less severely affected by drouth than those portions of Long Island where the gravel beds come so near the surface as to prevent moisture ascending from below by capillary attraction. (See *Agriculturist* for May, 1860.) Some who have been over more of the ground at Vineland, tell us that the pure sand does occasionally approach the surfaces, and even crop out at some points. We did not chance upon any such plots. Visitors prospecting at Vineland will be differently affected, according to the character of the country they

came from. Thus, some persons from the sandy regions of Southeastern Massachusetts, tell us the Vineland soil is very good; while those accustomed to the clay and loam lands of Upper Canada, Western New-York, Northern Ohio, and elsewhere, pronounce it quite too sandy for profitable culture. We found some at Vineland, especially mechanics, earning a livelihood from their trades as builders, etc., who talked very hopefully; we saw a few others, who are anxious to sell out.

It requires considerable outlay to clear off the underbrush, plow out or grub out the roots and stumps, fence, and build upon the land; we judge \$20 to \$30 per acre to get the soil into fair condition for cultivation, aside from buildings. Some estimates put it at \$3.50 per acre to cut and burn the brush; \$3.50 to \$4 per acre to run a heavy plow through it, leaving the large old stumps, or \$15 to \$17 per acre for "grubbing," without taking out the stumps, and then the harrowing, seeding is to be done; and the fencing as needed.

The soil must have manure to produce at all well. It is proposed to get it into clover and turn it under for manure. Time is required for this, and any one preparing to locate there must take into account the first cost of the land (\$15 to \$30 per acre, according to the location;) the preparation of the surface; fencing, buildings, etc. It is evident that a poor man, or one with only about enough to buy the land, would starve while fitting up a productive farm, unless he depended upon laboring for others to support himself. We would not advise any one to think of going there unless he has some ready money to expend upon the land, and to live upon for a year or two at least. The mere fact that the first cost of the land is small, compared with other sections, is not the only thing to be taken into account. What it costs to get it into profitable use, is quite as important. Mechanics and tradesmen, earning their livelihood in Philadelphia, or elsewhere near at hand, might perhaps find it worth while to expend their surplus earnings in fitting up a homestead at "Vineland," though they must consider, whether fewer acres at a higher price may or may not be a more profitable investment. Those seeking farms may also consider whether the land at Vineland is cheaper in its present condition, than older farms in the vicinity, already fitted up, though held at a higher price per acre.

We have said thus much to give the best information we could with our limited observation, to a large number of inquiring readers. Mr. Landis, who has charge of the Vineland settlement, appears to be somewhat enterprising, and the laying out and beginning of the prospective village and town, indicate taste and public spirit on his part, though he, like all others, doubtless has an eye to the ultimate profit. I he can bring in a class of persons who can afford to work the land up to profitable tillage, it will be so much gain to that part of New-Jersey. We learn that several hundred purchases have been made, and the new buildings going up, and the "clearings" begun here and there, indicate a purpose to see what can be done. Hundreds of persons from all parts of the country have been at the expense of a journey thither to see for themselves, and the reports brought back by many who have made our office a stopping point in their journey, are very various. The main object of the present article is to give our distant readers some items for judging whether it is worth their while to be at the expense of a personal visit. A more extended examination, at a more favorable season for seeing the vegetation, may give us a better or poorer opinion of the Vineland enterprise. The wide notoriety given to it by advertising and otherwise, and the multitude of inquiries addressed to us, justify the attention and space we have given to the subject. We are only sorry that we are not able to speak more definitely and positively. If the Vineland enterprise proves successful, and good farms are there developed, the example will be very beneficial to other large tracts of similar soil, now lying mainly unused, all through Southern New-Jersey.

### Our Exhibition Tables.

These have necessarily received less attention during our busy season, and during the Winter months there have of course, been greatly diminished contributions from the field, orchard, and gardens. Now, that the growing season has come on, we invite all who have objects of interest relating to the farm, garden and household, to place them upon our Tables where they may be freely seen by the multitudes who call at the office. During the year 1862 the number of callers on business and otherwise, averaged over 300 a day, or nearly 100,000. The table will be re-arranged this month, and objects placed thereon will be seen and enjoyed by a great number of interested persons. The Fruit Growers' Meetings continue with unabated interest, and will doubtless continue throughout the year, on Thursdays of each week—at 1 o'clock P. M., for the present. It was proposed at first to have weekly prize exhibitions of fruits, etc., and a fund was raised for

that purpose; but after full discussion, it was decided that there was abundant public spirit to keep up the exhibition without the stimulus of prizes, while the awards of prizes would be constant sources of dissatisfaction and heart burning. Committees on articles exhibited will be appointed for each month, and receive and examine fruits, etc., and report them to the general meeting. It is desired that fruits, etc., be sent in at 11 to 11½ o'clock A. M. on Thursday of each week, when they will receive the attention of the standing committee. The Prize Strawberry Show in June, and the Pumpkin, Squash and Gourd Show in October, will be announced elsewhere. The following contributions to our Tables have been made since our last report:

**FRUITS.**—Apples: The Freeman, Harrison, Baldwin, Canfield (sweet), Poughkeepsie Russet, and R. I. Greening, from E. Williams, of West Bloomfield, N. J.; Peck's Pleasant, from A. G. Baldwin; Queen Seedling of King, from P. J. Ward, of Bloomfield, N. J.; Sweet apples and grafts for distribution, from Mr. Stewart, of Middle Island, Conn.; Canfield apples from Mrs. Wheeler, of N. J.; Northern Spy, from Mr. Parish; Iron apples, from G. M. Usher, of Port Richmond, S. I.; King of Tompkins Co., from E. C. Frost, Highland Nurseries, Schuyler Co., N. Y.; Seedling apples, from J. D. McCabe, of White Plains, N. Y.; Newtown Pippins, from W. S. Carpenter, of Rye, N. Y.; Eng. Golden Russets, Hubbardston Nonsuch, Newtown Pippins, Baldwins, from J. L. Gougas, of Weston, Mass.; Variety for name, from N. R. Grants of Rockville, Conn.; Pears: Vicar of Winkfield, in winter, from W. S. Carpenter, of Rye, N. Y.; Great California Pear (3 lbs. 7 oz.), from Dr. Bellows, of New-York City.

**FLOWERS.**—Camellias (fine collection), specimen of Hexacentris Mysorensis, from Wm. Chorlton, of Staten Island; Bouquet of flowers made of wood, from John Sievers, of Hackensack, N. J.; Chinese Pinks in bloom in March, 8 large pots from M. Olm, in charge of grounds of O. Judd, at Flushing, N. Y.; Strelitzia Regina, or Bird of Paradise (very fine specimen plant) from E. Jones, East Morrisania, N. Y.; Cranston New Seedling Petunias, ditto Heliotrope Chieftain, from Mr. Cranston, Hoboken, N. J.

**VEGETABLES, SEEDS, ETC.**—Garnet Chili Potatoes, from P. H. Foster, Babylon, L. I.; Large Turnips, from Wm. T. Peck, of N. Y. City, and L. F. DeGaniere, of Greensburg, N. Y.; West India Yam (14 lbs.), from Mr. Bitter, of N. Y. City; Mormon Cotton, from C. H. Howard, of Utah; Yankton Corn and Mandarin Corn, (said to be ready for table in 40 days after planting), from Judge Caton, of Ottawa, Ill.; Specimens of White Flint Corn, from Abram Brown, of Deer Park, L. I.; Dent Corn (very large), from A. Monfort, of New Utrecht, L. I.; Chicory, from Scion Robinson, of N. Y. Tribune; Cotton, (grown at Deaf and Dumb Institute, Washington Heights), from Mr. Morris; Fancy Gourds, from A. S. Quackenbush, N. Y.; Corn from Wm. M. Pierson, of Brooklyn, N. Y.; Corn for name, (yields upwards of 100 bushels shelled corn to the acre) from E. Bunderhill, of Yorktown, N. Y.; Corn for name, from N. R. Grant of Rockville Conn.

**IMPLEMENTS.**—Model of N. J. Corn Marker, from D. C. Voorhees, of Blawenburg, N. J.; Patent Hog Ring, from Daniel Brown, of Lawe Ridge, Ill.

**MISCELLANEOUS.**—Sorghum (excellent—Improved method), from E. A. Van Meter, of Burlington, Iowa; Sorghum, (very fine, made on Cook's Evaporator), from Blymyer, Bates & Day, of Mansfield, Ohio; Sorghum Sugar and Syrup (from Ottaheitan cane), from H. B. Montrose, of Tremont, Ill.; Prepared fiber and cloth made partly of China Grass, from Wright & Whitman, of Boston, Mass.; Prepared Flax, from Mr. McFarlane, of N. J.; Cotton cloth (made from Illinois grown cotton), from Rev. J. A. Bent, of Hoyleton, Ill.; Strawberry Wine (good), from L. M. Pease, of N. Y. Industrial School; Cherry Wine, and Clinton Grape Wine, from Oneida Community, Oneida, N. Y.; Currant Wine, from J. C. F. Remmel, of Concord Grape Brandy, from Perry & Oliver, of Fordham, N. Y.; Grape Jelly (fine), from J. K. Brick, of Brooklyn, N. Y.; Trunk of Palmetto tree (4 feet section, 10 inches in diameter), from Lieut. N. W. Duryea, of 7th Regt., Brooklyn, N. Y.; Ice Spurs, from Mr. Lyman, of Brooklyn, N. Y.; Pieces of petrified pine (from whole tree found in marl near Fredericksburg, Va.), from F. F. O'Hearne, of Brooklyn, N. Y.; Petrified Oak (found near Fort Monroe), from Smith Briggs, 5th N. Y. Vols.; Maple Sugar (beautiful specimen, made without being cleansed or clarified by any substance whatever), from L. Woolcott, of Croton, N. Y.; Sorghum Syrup (good) from Mark Cornell, of Ford Co., Ill.; Specimens of paper made from corn-husks in Germany, from Hon. Truman Smith.

**Sewing Machines.**—No article of household use is so much desired as a sewing machine. So rapidly has this invention grown into public favor, that it is now considered almost indispensable to every family. Over a hundred thousand families already experience its benefits, and each week adds nearly another thousand to the list, and so the ratio of the demand increases in proportion as the advantages of the invention become known. The sewing machine of the present day is not, however, the sewing machine of some years back. Though retaining the first principles, many and valuable improvements have been added, and various modifications and alterations of machinery found necessary to increase the speed and efficiency, render it more simple and noiseless, and adapt it to all the different requirements of the family and the workshop. The Grover and Baker Sewing Machine Company, among the first to produce a practical Sewing Machine, have been most successful in attaining these results. Their machines are now to be found in almost every part of the world, and they are everywhere recognized as excellent.

## The Markets.

AMERICAN AGRICULTURIST OFFICE.  
New-York, Saturday Morning, April 18, 1863.

### 1. TRANSACTIONS AT THE NEW-YORK MARKETS.

**RECEIPTS.** Flour, Wheat, Corn, Rye, Barley, Oats.  
26 days this m'th 211,000 41,450 127,000 18,750 93,000 296,000  
24 days last m'th 235,000 41,000 173,000 57,000 78,000 294,000

**SALES.** Flour, Wheat, Corn, Rye, Barley.  
26 days this month, 321,000 413,000 1,492,000 148,800 105,000  
24 days last month 350,000 1,810,000 2,031,000 139,000 121,000

### 2. Comparison with same time last year.

**RECEIPTS.** Flour, Wheat, Corn, Rye, Barley, Oats.  
26 days 1863.....211,000 41,450 127,000 18,750 93,000 296,000  
26 days 1862.....248,650 107,570 263,900 49,650 116,000 143,000

**SALES.** Flour, Wheat, Corn, Rye, Barley.  
26 days 1863.....321,000 413,000 1,492,000 148,800 105,000  
26 days 1862.....305,800 389,000 1,967,000 148,000 235,000

### 3. Exports from New-York, Jan. 1, to April 15.

**Flour.** Wheat. Corn. Rye. Barley. Oats.  
1863.....235,693 3,860,171 2,201,810 127,700 100,707  
1862.....306,573 2,360,557 4,170,010 488,974 15,447

### 4. Receipts at Chicago, Jan. 1, to April 13.

**Flour.** Wheat. Corn. Rye. Barley. Oats.  
1863.....204,193 1,196,270 3,266,221 183,015 111,601 1,050,183  
1862.....232,566 1,666,068 1,453,177 196,337 291,637 204,414

### 5. Shipments from Chicago, Jan. 1, to April 13.

**Flour.** Wheat. Corn. Rye. Barley. Oats.  
1863.....27,593 418,961 1,580,377 52,808 15,178 415,820  
1862.....160,561 136,214 44,610 1,811 56,883 20,900

### CURRENT WHOLESALE PRICES.

	March 19.	April 18.
Flour—Super to Extra State	\$6 70 @ 7 00	\$6 10 @ 7 25
Superfine Western.....	6 70 @ 7 00	6 15 @ 6 50
Extra Western.....	7 00 @ 7 25	6 80 @ 6 75
Extra Genesee.....	7 00 @ 7 25	6 80 @ 6 75
Super to Extra Southern.....	7 40 @ 8 25	7 00 @ 6 75
Rye Flour—Fine and Super.....	3 50 @ 5 50	3 40 @ 5 40
CORN MEAL.....	4 15 @ 5 00	4 10 @ 4 80
WHEAT—All kinds of White.....	1 80 @ 1 90	1 75 @ 1 90
All kinds of Red.....	1 35 @ 1 75	1 32 @ 1 75
White.....	95 @ 1 00	92 @ 1 05
Mixed.....	90 @ 92	88 @ 90
OATS—Western.....	82 @ 84	86 @ 87
State.....	84 @ 85	87 @ 87½
RYE.....	1 08 @ 1 12	1 04 @ 1 09
BARLEY.....	1 05 @ 1 35	1 04 @ 1 09
BEANS—Medium and Pea, bu. 32.....	3 25	2 00 @ 3 15
Marrow and Kidney.....	3 25	2 00 @ 3 15
HAY, in bales, per 100 lbs.....	80 @ 85	80 @ 1 00
COTTON—Mid. Upland, per lb.....	12½ @ 13	12 @ 13
RICE, per 100 lbs.....	Nominal	Nominal
HOPS, crop of 1862, per lb.....	21 @ 28	16 @ 24
FEATHERS, Live Geese, p. lb.....	47½ @ 50	53½ @ 55
SEED—Clover, per lb.....	9 @ 10	8½ @ 9½
Timothy, per bushel.....	2 75 @ 3 00	2 50 @ 2 75
FLAX, per bushel.....	3 50 @ 4 00	3 50 @ 4 00
SUGAR—Brown, per lb.....	9½ @ 12½	8½ @ 12
MOLASSES, New Orleans, p. gal.....	42½ @ 57	45 @ 55
COFFEE, Rio, per lb.....	30½ @ 34	30 @ 33
ROBACCO—Kentucky, &c, p. lb.....	14 @ 32	15 @ 35
Seed Leaf, per lb.....	9 @ 32	14 @ 45
WOOL—Domestic fleece, p. lb.....	85 @ 1 05	75 @ 95
Domestic, pulled, per lb.....	80 @ 92½	65 @ 90
Wool, California, unwashed.....	35 @ 65	30 @ 55
TALLOW, per lb.....	12½ @ 13	11½ @ 12
OIL CASE, per tun.....	45 00 @ 53 00	40 00 @ 47 00
PORK—Mess, per bbl.....	14 12½ @ 16 75	13 50 @ 15 50
Prime, per bbl.....	11 50 @ 13 75	11 00 @ 13 00
BEEF—Plain mess.....	11 00 @ 12 75	10 50 @ 12 00
LARD, in bbl, per lb.....	10½ @ 11½	10½ @ 10½
BUTTER—Western, per lb.....	15 @ 16	16 @ 19
State, per lb.....	23 @ 28	18 @ 24
CHEESE.....	13 @ 15	11 @ 14
Broom Corn—per b.....	8 @ 10	8 @ 10
Eggs—Fresh, per dozen.....	20 @ 22	15 @ 17
POULTRY—Fowls, per lb.....	10 @ 15	12 @ 14
Ducks, per b.....	15 @ 19	15 @ 18
Geese, per b.....	8 @ 13	7 @ 10
Turkeys, per lb.....	14 @ 19	10 @ 14
POTATOES—Common, p. bbl.....	1 25 @ 1 50	1 25 @ 1 50
Buckeyes, per bbl.....	1 37 @ 1 50	1 37 @ 1 50
Peach Blow, per bbl.....	1 62 @ 1 75	1 50 @ 1 75
Mercers, per bbl.....	2 00 @ 2 50	1 75 @ 2 25
Nova Scotia, per bushel.....	60 @ 60	40 @ 50
Sweet, per bbl.....	4 00 @ 4 25	4 00 @ 4 25
ONIONS, Red & Yellow, p. bbl.....	4 75 @ 5 00	4 00 @ 4 50
APPLES, Greenings & Russets.....	2 25 @ 2 75	2 00 @ 2 75
Apples, choice, per bbl.....	2 50 @ 3 00	2 00 @ 4 00
DRIED APPLES, per lb.....	5 @ 6½	4 @ 6½
DRIED PLUMS, per lb.....	11 @ 12	10 @ 11
DRIED PEACHES, per lb.....	15 @ 16	12 @ 18

The Breadstuff Markets have been materially affected by the decline and fluctuations in gold, though as shown in the tables above, the volume of business, both in receipts and sales has been fair, as compared with the same period last year. Every decline or rise in the currency value of gold affects foreign exchange, and correspondingly depresses or raises the relative value of breadstuffs for exports. (Dry Goods, and all articles imported, are doubly affected by these gold changes, for the importer pays one premium on exchange, to pay in foreign markets, and another on the gold for duties). The demand for breadstuffs has been quite moderate, both for shipment and home use; and as most holders have been eager to sell, prices have declined materially on this account. Flour has fallen 30 to 60 cents per barrel; and Wheat about 5 cents per bushel; and Mixed Western Corn 2 cents per bushel. The present tendency is toward a lower range; owing to the heaviness in the market for gold. Sterling Exchange Bills are not in much request and are quoted 1½ to 2½ per cent. lower proportionately than gold, which circumstance operates as a serious hindrance to active export movements. The shipments of domestic produce, within each of the past two weeks, have consequently been on a much less extensive scale than during each week in the month of March. The falling off is most obvious in breadstuffs, the exports of provisions indicating a vigorous foreign demand for Amer-

ican hog products. The latter, however, have been very freely offered in this market at reduced prices. The annual statement of the Western pork packing business for the past season shows a marvellous result. The number of hogs packed the present season is over four million head (actually 4,069,620) being an increase over the packing of the season of 1861-62 of nearly a million and a quarter, namely, 1,176,887, or 40 per cent. The decrease in weight is 7½ per cent., leaving a net increase of over 32 3-5th per cent. as compared with last year. The yield of leaf lard is five pounds per hog less than it was in 1861-62, but owing to the great increase in the number of hogs slaughtered, there is an absolute increase in quantity of 27½ per cent. over last season. The demand for Wool has been quite limited, during the past two or three weeks, and prices have declined considerably. Manufacturers are afraid to buy freely, in the present unsettled state of the market for gold, which directly affects, and, to a great extent, positively governs every branch of regular business. Cotton has fluctuated materially, closing, however, lamely at drooping prices. Hay has been in fair demand at full rates. Hops and Tobacco have been quiet and depressed. There has been unusual dullness in most other commodities. The table of Prices Current show the present rates, and the changes from one month ago.

Hogs packed in the West during each of the last two seasons:

	1861-2.	1862-3.
Ohio.....	791,099	981,683
Iowa.....	205,188	403,899
Indiana.....	494,298	587,528
Illinois.....	835,881	1,484,834
Missouri.....	138,766	284,011
Kentucky.....	144,945	130,930
Wisconsin.....	100,556	196,745
Tennessee.....	182,000	None.
Grand Totals.....	2,892,733	4,069,620
Increase.....		1,176,887

	Average weight per Hog.	Yield of Lard per Hog.
	1861-2.	1862-3.
Ohio, lbs.....	230	223½
Indiana, lbs.....	221½	207
Illinois, lbs.....	230	217½
Kentucky, lbs.....	221	204
Missouri, lbs.....	227	220
Iowa, lbs.....	224	209½
Wisconsin, lbs.....	260	214

**Live Stock Market.**—BEEF CATTLE HAVE averaged 4,610 head per week, which is a large supply for the Lenten season. Government agents, and shippers to Bermuda, the West Indies, and to New-Orleans, have bought pretty freely, and prices have advanced about 1c. per lb., net weight, since our last report, and are 2c. higher than a year ago. The present rates are equivalent to 11½c. @ 12c. per lb., net weight of the dressed quarter, for the best; 10c. @ 11c. for good cattle; and 8c. @ 9c. for poorer grades. New-York State is thoroughly drained of beef cattle, and with the large demand likely to continue, dealers are looking for higher prices before July.

**Ven Calves** come in freely, as usual at this season. The weekly receipts have averaged 785 for a month past. The higher rates for beef have benefited the Venal markets, as good calves readily go at 5c. @ 7c. per lb., live weight; common to fair class at 5c. @ 6c.

**Sheep.**—The receipts have averaged 5,673 per week. The decline in wool consequent upon the decline in gold, has lessened the value of full-wooled pelts about 81 cent, and sheep are about that much lower. A few of the best fine-wooled fat sheep go at prices equivalent to 10c. per lb., live weight; ordinary to good, 8c. @ 9c.

**Live Hogs.**—Receipts have averaged 14,633 per week. The little demand for packing, and the approach of warm weather, depress the market. Prices now rule at 5½c. @ 5½c. per lb., live weight, for heavy, fat, corn-fed hogs; 4½c. @ 4½c. for still-fed; and 3½c. @ 4c. for mast-fed.

**The Weather.**—Since our last notes, Feb. 20, has been changeable, with a good deal of cold and wet, making the season quite backward. There was a fall of one foot of snow on Feb. 22, cold to 24, warm 25, with heavy rain 26 and 27.—March 1, rain—2, clear, warm—3, rain and snow—4, 5, cool—6 to 8, snow and rain—9, clear, sleighs out—10, 11, more snow—12 to 17, clear, cool, light rain on night of 17—18 to 20, fine, warm—21, cloudy, heavy rain at night—22, 23, clear, fine—24, cloudy, rain at night—25, hard N.E. rain ending with thunder-shower at night—26, 27, clear, fine—28, N.E. rain-storm—29, 30, clear, cool—31, snow and rain.—April 1, clear—2, cloudy, rain at night—3, clear, fine—4, 5, snow and rain—6, clear A. M., cloudy P. M., rain at night—7, rain and snow—8, cloudy—9 to 12, clear, fine, warm, rain night of 12—13, cool, cloudy—14, clear, fine—15, cloudy, rainy night—16, hard N.E. rain day and night—17, 18, cloudy, ground too wet for farm work. Some farmers have planted their potatoes, and sown oats and peas. Market gardeners have set out early cabbages.

### Thermometer at 6 A. M., New-York.

[Observations carefully made upon a standard Thermometer (Fahrenheit).—r indicates rain—s, snow.]

FEBRUARY.									
1.....	27r	7.....	32	13.....	26	19.....	37r	25.....	95
2.....	38	8.....	29	14.....	17	20.....	41r	26.....	34r
3.....	24	9.....	37	15.....	39	21.....	22	27.....	39r
4.....	5	10.....	37	16.....	32	22.....	16s	28.....	32
5.....	4s	11.....	30	17.....	27	23.....	17		
6.....	46r	12.....	34r	18.....	23	24.....	15	Aver'e.....	25½
MARCH.									
1.....	33r	8.....	29s	15.....	14	22.....	37	29.....	37r
2.....	32	9.....	30	16.....	29	23.....	38	30.....	34
3.....	36r	10.....	32	17.....	23	24.....	36	31.....	34
4.....	26	11.....	30s	18.....	35r	25.....	49r		
5.....	14	12.....	24	19.....	20	26.....	41	Aver'e.....	20½
6.....	31s	13.....	16	20.....	20	27.....	36		
7.....	36r	14.....	20	21.....	22r	28.....	32r		
APRIL.									
1.....	36	4.....	30r	7.....	42r	10.....	39	13.....	43
2.....	38r	5.....	35r	8.....	32	11.....	46	14.....	39
3.....	29	6.....	36r	9.....	34	12.....	50r	14.....	41



## Business Notices.

Eighty Cents a Line of space.

## Another Call to Housekeepers.

Housekeepers are again requested to send to their Grocer for Pyle's O. K. Soap. The best ever made; Also for Pyle's Saleratus and Baking Cream Tartar. There are no articles of the kind in market so useful and reliable as these. The Editor of this and of nearly all the religious weeklies, use them. All articles bearing our name, are pure and of good weight.

JAMES PYLE, Manufacturer,  
350 Washington-st., cor. of Franklin, N. Y.

## Lands-To All Wanting Farms.

Large and thriving settlement of Vineland, mild climate, 30 miles south of Philadelphia, by railroad; rich soil; fine crops; twenty acre tracts, at from \$15 to \$20 per acre; payable within four years. Good business openings; good society. Hundreds are settling and making improvements. Apply to CHAS. K. LANDIS, Postmaster, Vineland, Cumberland County, N. J. Letters answered. Papers containing full information sent free.

Republished with Changes.

## PREMIUM LIST—1863.

Good Pay to Voluntary Agents who attend to Collecting and forwarding Clubs of Subscribers to the American Agriculturist.

(Premiums open to all who Desire them.)

**N. B.**—The great advance in the cost of some of the Articles offered in our Premium List, renders it necessary to republish the list with the needed changes. For some of the articles we now pay half as much again as we did when the list was first made out for this year. When asked to do so, we adhere to the terms offered in the January number, up to February 1st, after which the terms will be as named below. It will be seen that we have not raised the number of names required proportionally, as much as the increased cost of the articles would really demand. The following terms will hold good until June 1st, when other changes will be announced if needed.

All Premiums offered, of every kind, will close with the Month of July.

Table of Premiums for 1863.

Names of Premium Articles.	Price of Premiums.	Names at 80 cts. each.	Names at 10 cts. each.
1—Good Books—See terms below.....	\$7 50	19	40
2—Best Family Clothes Wringer.....	\$15 00	33	75
3—Nonpareil Washing Machine.....	\$45 00	90	130
4—Sewing Machine, (Wheeler & Wilson).....	\$40 00	79	112
5—Sewing Machine, (Willcox & Gibbs).....	\$35 00	25	57
6—Aneroid Barometer.....	\$10 00	25	54
7—The Aquarius.....	\$10 00	183	252
8—Five Octave Melodeon (best).....	\$65 00	112	197
9—4½ Octave Melodeon (best).....	\$35 00	102	163
10—Four Octave Melodeon (best).....	\$25 00	25	53
11—Worcester's Unabridged Dictionary.....	\$6 75	19	35
12—Six back Volumes Agriculturist.....	\$5 60	16	30
13—Five do do do.....	\$4 43	13	25
14—Four do do do.....	\$3 36	10	20
15—Three do do do.....	\$2 24	..	15
16—Two do do do.....	\$1 12	..	10
17—One do do do.....	\$1 48	..	14
18—Jacob's Portfolio Paper File.....	\$3 50	13	29
19—Windsor & Newton's Paints.....	\$1 50	..	15
20—Osborn & Hodgkinson's Paints.....	\$10 00	32	70
21—Premium Cylinder Plow.....	\$9 25	30	65
22—Eagle Plow No. 20.....	\$9 00	27	63
23—Hay and Straw Cutter (best).....	\$7 50	25	55
24—Steel-tooth Cultivator (best).....	\$7 00	24	53
25—Family Lard and Wine Press.....			

We wish it distinctly understood that these premiums are offered in good faith—no cheap, trashy, imperfect, poorly made, or second-hand thing, will be sent out, but each article offered, is the best of its kind.

Every person collecting names for premiums, should send two copies of each list of names—one of them marked "For Premiums," and also with the name of the sender.

Any person who has commenced sending in names at 80c., and finally fails to get the higher number of names, can fall back upon the smaller number, by remitting the 20 cents extra on each of the smaller number of names required.

Clubs need not be all confined to one Post Office.

## DESCRIPTION OF THE PREMIUMS.

## Premium No. 1—Good Books.

Any person sending 16 or more subscribers, may select from our book list, (page 159,) to the amount of 12½ cents for each name, at the club price of 80 cents, or to the amount of 3¼ cents for each name at \$1. Farmers' Clubs have frequently joined together and obtained a good library through these premiums. N. B.—The books will be delivered to the recipients, (by mail or express,) free of all cost, when under 1,500 miles. For Books going over 1,500 miles,

18 cents on each dollar's worth must be sent to us to pay the extra postage required in advance.

As the prices of books are continually changing, the book premiums will be reckoned by the prices given in the list for the month in which they are called for.

## No. 2—Family Clothes-Wringer.

This is a first-rate household implement—a great saver of garments, and of hard work. With this machine set on the edge of the wash-tub, the garments are easily and rapidly passed between two India-rubber rollers, the water falling back into the tub, and the garments dropping into a basket, in a drier condition than they can be wrung by hand, and therefore more quickly dried on the line. A child can, in a few minutes, wring out a tubful of clothes. We have had one in constant use in our family for nearly three years, and it is still as good as new. The machine offered, No. 2, is just the thing for family use. It is provided with cogs to move the rollers together, so that it is not possible to tear garments, as is the case with cheaper Wringers not provided with cogs. We present one of these No. 2 Wringers to any person procuring and forwarding 19 subscribers, at \$1 each, or 40 at the lowest club price, (50 cents each.)

## Premium No. 3—Washing Machine.

The Nonpareil Washing Machine we have had in use in our family for over a year past, and it has not only driven out half-a-dozen placed there on trial, but has really given excellent satisfaction. It is the only machine, out of twenty we have tried, which the "help" cheerfully use without compulsion. It is a labor-saver and a clothes-saver—two important considerations. The clothes are put in, in quantity and quickly washed by simply turning a crank. The balance-wheel adjusts the force required, so as to make the turning easy. Take it all in all, it is the best Washing Machine we know of, and is worthy of a place in every family. There are three sizes; we select No. 2, as the best size for common family use. The price of No. 2 is \$16. This machine we will present to any one forwarding 35 subscribers at the regular price (\$1 each); or 75 subscribers at the lowest club price, (30 cents). The machine can be sent to any point as freight, or by express, and will be forwarded, free of all expense, except the freight after leaving the city.

## Premium No. 4—Sewing Machine.

90 Subscribers at \$1 each, (or 130 at 50 cents each,) will entitle the person sending them to Willcox & Gibbs' \$45 Sewing Machine, (including Hemmer), new from the factory, and of the very best make. There is no better family machine than this made, as we have proved by nearly five years' use in our own family, in connection with other machines. We want no better. The terms on which it is offered above, will enable many families to secure one without direct outlay of money.

## Premium No. 5—Sewing Machine.

79 Subscribers at \$1 each, (or 112 at 50 cents each,) will entitle the person procuring them to Willcox & Gibbs' \$40 Sewing Machine, including a set of Hemmers. This is the best machine of its kind, (sewing with one thread,) and has several points superior to other machines.

## Premiums Nos. 13 to 18—Back Volumes—A First-rate Library.

These premiums (13 to 18,) will enable any one to secure the previous excellent volumes of the American Agriculturist, as far back as Volume XVI. These will be sent post-paid, in clean, new numbers unbound, but each volume by itself, with index. The whole five can be taken together, or one or more copies of any particular volume be selected, as desired. They will be presented as in the Table above. Let every one be careful to name just which back volumes are desired.

## Premium No. 19—Best File for Agriculturist.

Jacobs' Portfolio File, made just to fit the Agriculturist—the name gilded on. This is a leather cover or portfolio, so arranged that successive numbers of the paper can be inserted in a minute, and be properly preserved in book form for reading. When one volume is completed, the sheets can be removed and stitched, and a new volume inserted. A single cover will answer for a dozen successive volumes. It is the most complete file yet made. The price now is \$1.25, and the postage 25 cents. We will forward it, post-paid, to any one sending fourteen subscribers, at the lowest club price, (50 cents each.)

## Premiums Nos. 6 to 12 and 22 to 26.

We have not space to describe these particularly. See American Agriculturist for February, page 60.

## Circulation of the Agriculturist.

Beyond all doubt or controversy, the circulation of the American Agriculturist to regular subscribers, is many thousands greater than that of any other Agricultural or Horticultural Journal in the World, no matter what its character, or time or place of issue. The publisher is ready at all times to substantiate this statement by comparing books.

## Advertisements.

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month.

TERMS—(Invariably cash before insertion):

FOR THE ENGLISH EDITION ONLY.  
Fifty cents per line of space for each insertion.  
One whole column (145 lines), or more, \$60 per column.

Business Notices, Eighty cents per line of space.  
FOR THE GERMAN EDITION ONLY.  
Ten cents per line of space for each insertion.  
One whole column (130 lines), or more, \$10 per column.

Business Notices, twenty cents a line.

**WANTED**—By a young man, obliged to give up a professional life, a situation with some good farmer or nurseryman, the latter preferred, to learn the business. The advertiser has had some experience in both. Good references given and asked. Address, with real name, A. M., Locustville, Accomac Co., Va.

**FARM WANTED OF ABOUT TWENTY** acres garden land, well fruited and watered—near market—ordinary buildings. Moderate price. Address with full particulars, J. CALDWELL, Orange, New-Jersey.

## EVERGREENS.

## PLANT EVERGREEN TREES NOW.

They are clothed with foliage all winter. The exhalations from their leaves are conducive to health. They will make you a garden all the year. There are 200 varieties to be seen in the ground. Send for a Catalogue to

PARSONS & CO., Flushing, L. I.

## Coleus Verschaffeltii.

The undersigned, having a large stock of the above new, rare, and beautiful bedding plant, offers it at the reduced price of 50 cts. each. The usual liberal discount to the trade. Plants can be obtained at McIlvaine & Young's seed store, No. 9 John-st., or at C. B. Miller's, 634 Broadway. JOHN S. BARNES, Florist, Port Richmond, S. I., N. Y.

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THE ATTENTION of Fruit Growers and dealers is called to the accompanying cut, which represents the new—useful, and VERY CHEAP Patent Fruit Basket.

For Circulars, &c., address  
A. BEECHER & SONS,  
Westville,  
Conn.

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Order the AMERICAN STOCK JOURNAL, One Dollar a Year.

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Send One Dollar to SAXTON, and get his STOCK JOURNAL, a Year.

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**POULTRY BREEDERS,** be sure and order STOCK JOURNAL BEE-KEEPERS, order it.

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Published monthly by C. M. SAXTON, New-York.  
PRICE \$1, PER ANNUM.

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AGENTS WANTED for NEW, USEFUL, SALABLE, and VALUABLE articles for the Household, warranted to give satisfaction. Full particulars furnished free on application to  
RICE & CO.,  
No. 37 Park Row, New-York.

## HOMES FOR ALL—NEW-JERSEY LANDS.

New and thriving agricultural settlement at Elwood, N. J. Railroad connection with Philadelphia and New-York. Mild, healthy climate; good, loamy soil—excellent for grapes and the finer fruits. Farms and village lots of sizes and at prices to suit purchasers. Full information sent free. Apply to  
DHS. NORTH & ROWLAND,  
Elwood, Atlantic Co., N. J.

**"THE HUMAN FACE DIVINE,"** and How to Read it. The meaning of a Long Nose, a Short Nose, and a Pug Nose. The Mouth, and what it says. The Chin, Lips loving, and Lips hating, and the Lips of a Scold. Eyes, light and dark. Hair, coarse or fine. Skin, rough or smooth. Each line, wrinkle, and mark has its meaning. And the whole is explained in THE PHRENOLOGICAL JOURNAL, and LIFE ILLUSTRATED. Price \$1 a year—if ordered before 1st July—if after that date, \$1.50. Subscriptions may begin now. Sample Nos. 10 cts. Inclose the amount, and address  
FOWLER & WELLS, 308 Broadway, New-York.

that purpose; but after full discussion, it was decided that there was abundant public spirit to keep up the exhibition without the stimulus of prizes, while the awards of prizes would be constant sources of dissatisfaction and heart burning. Committees on articles exhibited will be appointed for each month, and receive and examine fruits, etc., and report them to the general meeting. It is desired that fruits, etc., be sent in at 11 to 11½ o'clock A. M. on Thursday of each week, when they will receive the attention of the standing committee. The Prize Strawberry Show in June, and the Pumpkin, Squash and Gourd Show in October, will be announced elsewhere. The following contributions to our Tables have been made since our last report:

**FRUITS.**—Apples: The Freeman, Harrison, Baldwin, Canfield (sweet), Poughkeepsie Russet, and R. L. Greening, from E. Williams, of West Bloomfield, N. J.; Peck's Pleasant, from A. G. Baldwin; Queen Seedling of King, from P. J. Ward, of Bloomfield, N. J.; Sweet apples and grafts for distribution, from Mr. Stewart, of Middle Island, Conn.; Canfield apples from Mrs. Wheeler, of N. J.; Northern Spy, from Mr. Parish; Iron apples, from G. M. Usher, of Port Richmond, S. I.; King of Tompkins Co., from E. C. Frost, Highland Nursery, Schuylkill Co., N. Y.; Seedling apples, from J. D. McCabe, of White Plains, N. Y.; Newtown Pippins, from W. S. Carpenter, of Rye, N. Y.; Newtown Pippins (fine) from P. Voorhees, of Nyack, N. Y.; Eng. Golden Russets, Hubbardston Nonsuch, Newtown Pippins, Baldwin, from J. L. Gourgas, of Weston, Mass.; Variety for name, from N. R. Grants of Rockville, Conn.; Pears: Vicar of Winkfield, in winter, from W. S. Carpenter, of Rye, N. Y.; Great California Pear (3 lbs. 7 oz.), from Dr. Bellows, of New-York City.

**FLOWERS.**—Camellias (fine collection), specimen of Hexacentris Mysorensis, from Wm. Chorlton, of Staten Island; Bouquet of flowers made of wood, from John Sievers, of Hackensack, N. J.; Chinese Pinks in bloom in March, 8 large pots from M. Olin, in charge of grounds of O. Judd, at Flushing, N. Y.; Strelitzia Regina, or Bird of Paradise (very fine specimen plant) from E. Jones, East Morrisania, N. Y.; Cranston New Seedling Petunias, ditto Heliotrope Chieftain, from Mr. Cranston, Hoboken, N. J.

**VEGETABLES, SEEDS, ETC.**—Garnet Chili Potatoes, from P. H. Foster, Babylon, L. I.; Large Turnips, from Wm. T. Peck, of N. Y. City, and L. E. DeGanier, of Greensburg, N. Y.; West India Yam (14 lbs.), from Mr. Blitzer, of N. Y. City; Mormon Cotton, from C. H. Howard, of Utah; Yankton Corn and Mandan Corn, (said to be ready for table in 40 days after planting), from Judge Caton, of Ottawa, Ill.; Specimens of White Flint Corn, from Abram Brown, of Deer Park, L. I.; Dent Corn (very large), from A. Monfort, of New Utrecht, L. I.; Chicory, from Solon Robinson, of N. Y. Tribune; Cotton, (grown at Deaf and Dumb Institute, Washington Heights), from Mr. Morris; Fancy Gourds, from A. S. Quackenbush, N. Y.; Corn from Wm. M. Pierson, of Brooklyn, N. Y.; Corn for name, (yields upwards of 100 bushels shelled corn to the acre) from E. Bunderhill, of Yorktown, N. Y.; Corn for name, from N. R. Grant of Rockville, Conn.

**IMPLEMENTS.**—Model of N. J. Corn Marker, from D. C. Voorhees, of Blawenburg, N. J.; Patent Hog Ring, from Daniel Brown, of Lawn Ridge, Ill.

**MISCELLANEOUS.**—Sorghum (excellent—Improved method), from E. A. Van Meter, of Burlington, Iowa; Sorghum, (very fine, made on Cook's Evaporator), from Blymyer, Bates & Day, of Mansfield, Ohio; Sorghum Sugar and Syrup (from Olusathe cane), from H. B. Montrose, of Tremont, Ill.; Prepared fiber and cloth made partly of China Grass, from Wright & Whitman, of Boston, Mass.; Prepared Flax, from Mr. McFarlane, of N. J.; Cotton cloth (made from Illinois grown cotton), from Rev. J. A. Bent, of Hoytville, Ill.; Strawberry Wine (good), from L. M. Pease, of N. Y. Industrial School; Cherry Wine, and Clinton Grape Wine, from Oneida Community, Oneida, N. Y.; Currant Wine, from J. C. F. Rommel; Concord Grape Brandy, from Perry & Oliver, of Fordham, N. Y.; Grape Jelly (fine), from J. K. Brick, of Brooklyn, N. Y.; Trunk of Palmetto tree (4 feet section, 10 inches in diameter), from Lieut. N. W. Duryea, of 7th Regt., Brooklyn, N. Y.; Ice Spurs, from Mr. Lyman, of Brooklyn, N. Y.; Pieces of petrified pine (from whole tree found in marl near Fredericksburg, Va.), from F. F. O'Hearne, of Brooklyn, N. Y.; Petrified Oak (found near Fort Monroe), from Smith-Briggs, 5th N. Y. Vols.; Maple Sugar (beautiful specimen, made without being leached or clarified by any substance whatever), from L. Woolcott, of Croton, N. Y.; Sorghum Syrup (good) from Mark Cornell, of Ford Co., Ill.; Specimens of paper made from corn-husks in Germany, from Hon. Truman Smith.

**Sewing Machines.**—No article of household use is so much desired as a sewing machine. So rapidly has this invention grown into public favor, that it is now considered almost indispensable to every family. Over a hundred thousand families already experience its benefits, and each week adds nearly another thousand to the list, and so the ratio of the demand increases in proportion as the advantages of the invention become known. The sewing machine of the present day is not, however, the sewing machine of some years back. Though retaining the first principles, many and valuable improvements have been added, and various modifications and alterations of machinery found necessary to increase the speed and efficiency, render it more simple and noiseless, and adapt it to all the different requirements of the family and the workshop. The Grover and Baker Sewing Machine Company, among the first to produce a practical Sewing Machine, have been most successful in attaining these results. Their machines are now to be found in almost every part of the world, and they are everywhere recognized as excellent.

## The Markets.

AMERICAN AGRICULTURIST OFFICE.  
New-York, Saturday Morning, April 18, 1863.

TRANSACTIONS AT THE NEW-YORK MARKETS.						
RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
26 days this m'th	211,000	41,450	127,000	18,750	93,000	296,000
24 days last m'th	233,000	41,000	173,000	57,000	78,000	294,000
SALES.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
26 days this month	321,000	413,000	1,492,000	148,800	105,000	
24 days last month	350,000	1,810,000	2,031,000	139,000	121,000	

Comparison with same time last year.						
RECEIPTS.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
26 days 1863	211,000	41,450	127,000	18,750	93,000	296,000
26 days 1862	248,650	107,370	263,900	49,650	116,000	143,000
SALES.	Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.
26 days 1863	321,000	413,000	1,492,000	133,000	105,000	
25 days 1862	305,800	398,000	1,367,000	148,000	235,000	

Exports from New-York, Jan. 1, to April 15.						
Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.	
Bbls.	Bush.	Bush.	Bush.	Bush.	Bush.	
1863	298,688	8,860,171	2,201,875	127,370	100,707	
1862	286,573	2,300,557	4,120,010	488,974	15,447	

Receipts at Chicago, Jan. 1, to April 13.						
Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.	
Bbls.	Bush.	Bush.	Bush.	Bush.	Bush.	
1863	204,193	1,198,270	3,266,221	183,015	111,601	1,050,183
1862	282,366	1,606,068	1,433,177	186,357	291,637	204,414

Shipments from Chicago, Jan. 1, to April 13.						
Flour.	Wheat.	Corn.	Rye.	Barley.	Oats.	
Bbls.	Bush.	Bush.	Bush.	Bush.	Bush.	
1863	27,963	418,961	1,580,377	52,803	15,178	415,820
1862	160,561	136,214	44,610	1,811	56,833	20,900

Extra Genesee	7 65	@ 9 00	7 30	@ 8 75
Super, to Extra Southern	7 40	@ 10 25	7 00	@ 9 75
RYE Flour—Fine and Super.	3 50	@ 5 50	3 40	@ 5 40
CORN MEAL	4 15	@ 5 00	4 10	@ 4 80
WHEAT—All kinds of White	1 90	@ 1 80	1 75	@ 1 90
All kinds of Red	1 37½	@ 1 75	1 20	@ 1 35
CORN—Yellow	90	@ 98	92	@ 95
White	95	@ 1 00	92	@ 1 05
Mixed	90	@ 92	88	@ 90
State—Western	82	@ 84	86	@ 87
RYE	1 08	@ 1 12	1 04	@ 1 07½
BARLEY	1 40	@ 1 55	1 45	@ 1 60
BEANS—Medium and Pea, bu.	3 25		2 00	@ 3 15
Marrow and Kidney	3 25		2 00	@ 3 15
HAY, in bales, per 100 lbs.	80	@ 85	80	@ 1 00
COTTON—Middlings, per lb.	71½	@ 82	74	@ 87
RICE, per 100 lbs.	Nominal.		Nominal.	
HOPS, crop of 1862, per lb.	21	@ 28	16	@ 24
FEATHERS, Live Geese, p. lb.	47½	@ 50	52½	@ 55
SEED—Clover, per lb.	2 75	@ 3 00	2 84	@ 2 94
Timothy, per bushel	3 50	@ 4 00	3 65	@ 3 90
FLAX, per bushel	3 50	@ 4 00	3 84	@ 4 12
SUGAR—Brown, per lb.	9½	@ 12½	8½	@ 12
MOLASSES—New Orleans, p. gal.	42½	@ 57	45	@ 55
COFFEE, Rio, per lb.	23	@ 34	20	@ 33
TOBACCO—Kentucky, &c., p. lb.	14	@ 32	16	@ 35
SEED—Lard, per lb.	9	@ 14	10	@ 15
WOOL—Domestic fleece, p. lb.	85	@ 105	75	@ 95
Domestic, pulled, per lb.	80	@ 92½	65	@ 90
Wool, California, unwashed.	25	@ 65	30	@ 55
TALLOW, per lb.	12½	@ 13	11½	@ 13
OIL CAKE, per ton	48 00	@ 53 00	40 00	@ 47 00
PORK—Mess, per bbl.	14 12½	@ 16 75	13 00	@ 15 00
Prime, per bbl.	11 50	@ 13 75	11 00	@ 13 00
BEEF—Plain mess	11 00	@ 12 75	10 50	@ 12 00
LARD, in bbls, per lb.	10½	@ 11½	9½	@ 10½
BUTTER—Western, per lb.	17	@ 22½	16	@ 19
State, per lb.	23	@ 28	18	@ 24
CHEESE—	13	@ 15	11	@ 13
Broom Corn—per b.	8	@ 10	8	@ 10
EGGS—Fresh, per dozen	20	@ 22	15	@ 17
POULTRY—Fowls, per lb.	10	@ 15	12	@ 14
Ducks, per b.	15	@ 19	15	@ 18
Geese, per b.	8	@ 14	10	@ 13
Turkey, per lb.	14	@ 19	10	@ 14
POTATOES—Common, p. bbl.	1 25	@ 1 50	1 25	@ 1 50
Buckeyes, per bbl.	1 25	@ 1 50	1 37	@ 1 50
Peach Blow, per bbl.	1 62	@ 1 75	1 50	@ 1 75
Mercers, per bbl.	2 00	@ 2 50	1 75	@ 2 25
NOVA SCOTIA, per bushel	60	@ 40	60	@ 75
Sweet, per bbl.	4 00	@ 4 25	4 00	@ 4 25
ONIONS, Red & Yellow p. bbl.	4 75	@ 5 00	4 00	@ 4 50
APPLES, Greenings & Russets	2 25	@ 2 75	2 00	@ 2 75
APPLES, choice, per bbl.	2 25	@ 5 00	2 00	@ 4 00
DRIED APPLES, per lb.	5	@ 6	4½	@ 5½
DRIED PEACHES, per lb.	11	@ 12	10	@ 11
DRIED PLUMS, per lb.	15	@ 16	12	@ 18

The Breadstuff Markets have been materially affected by the decline and fluctuations in gold, though as shown in the tables above, the volume of business, both in receipts and sales has been fair, as compared with the same period last year. Every decline or rise in the currency value of gold affects foreign exchange, and correspondingly depresses or raises the relative value of breadstuffs for exports. (Dry Goods, and all articles imported, are doubly affected by these gold changes, for the importer pays one premium on exchange, to pay in foreign markets, and another on the gold for duties). The demand for breadstuffs has been quite moderate, both for shipment and home use; and as most holders have been eager to sell, prices have declined materially on this account. Flour has fallen 30 to 60 cents per barrel; and Wheat about 4 cents per bushel; and Mixed Western Corn 2 cents per bushel. The present tendency is toward a lower range; owing to the heaviness in the market for gold. Sterling Exchange Bills are not in much request and are quoted 1½ to 2½ per cent. lower proportionately than gold, which circumstance operates as a serious hindrance to active export movements. The shipments of domestic produce, within each of the past two weeks, have consequently been on a much less extensive scale than during each week in the month of March. The falling off is most obvious in breadstuffs, the exports of provisions indicating a vigorous foreign demand for Amer-

ican hog products. The latter, however, have been very freely offered in this market at reduced prices. The annual statement of the Western pork packing business for the past season shows a marvelous result. The number of hogs packed the present season is over four million head (actually 4,069,620) being an increase over the packing of the season of 1861-62 of nearly a million and a quarter, namely, 1,176,887, or 40 per cent. The decrease in weight is 7½ per cent., leaving a net increase of over 32 3-5th per cent. as compared with last year. The yield of leaf lard is five pounds per hog less than it was in 1861-2, but owing to the great increase in the number of hogs slaughtered, there is an absolute increase in quantity of 27½ per cent. over last season. The demand for Wool has been quite limited, during the past two or three weeks, and prices have declined considerably. Manufacturers are afraid to buy freely, in the present unsettled state of the market for gold, which directly affects, and to a great extent, positively governs every branch of regular business. Cotton has fluctuated materially, closing, however, tamely at dropping prices. Hay has been in fair demand at full rates. Hops and Tobacco have been quiet and depressed. There has been unusual dullness in most other commodities. The table of Prices Current show the present rates, and the changes from one month ago.

Hogs packed in the West during each of the last two seasons:

	1861-2.	1862-3.
Ohio	791,099	981,683
Iowa	205,168	403,899
Indiana	494,298	587,528
Illinois	835,881	1,484,834
Missouri	138,766	284,011
Kentucky	144,945	130,920
Wisconsin	100,556	196,745
Tennessee	182,000	None.
Grand Totals	2,892,733	4,069,620
Increase		1,176,887

	Average weight per Hog.	Yield of Lard per Hog.
	1861-2.	1862-3.
Ohio, lbs.	230	223½
Indiana, lbs.	221½	209
Illinois, lbs.	236	217½
Kentucky, lbs.	221	204
Missouri, lbs.	227	220
Iowa, lbs.	224	209½
Wisconsin, lbs.	214	35

**Live Stock Market.**—BEEF CATTLE HAVE averaged 4,610 head per week, which is a large supply for the Lenten season. Government agents, and shippers to Bermuda, the West Indies, and to New-Orleans, have bought pretty freely, and prices have advanced about 1c. per lb., net weight, since our last report, and are 2c. higher than a year ago. The present rates are equivalent to 11½c. @ 12c. per lb., net weight of the dressed quarter, for the best; 10c. @ 11c. for good cattle; and 8c. @ 9c. for poorer grades. New-York State is thoroughly drained of beef cattle, and with the large demand likely to continue, dealers are looking for higher prices before July.

**Veal Calves** come in freely, as usual at this season. The weekly receipts have averaged 785 for a month past. The higher rates for beef have benefited the Veal markets, and good calves readily go at 6½c. @ 7c. per lb., live weight; common to fair class at 5c. @ 6c.

**Sheep.**—The receipts have averaged 5,673 per week. The decline in wool consequent upon the decline in gold, has lessened the value of full-worled pelts about \$1 each, and sheep are about that much lower. A few of the best fine-wooled fat sheep go at prices equivalent to 10c. per lb., live weight; ordinary to good, 8c. @ 9c.

**Live Hogs.**—Receipts have averaged 14,633 per week. The little demand for packing, and the approach of warm weather, depress the market. Prices now rule at 5½c. @ 5¾c. per lb., live weight, for heavy, fat, corn-fed hogs; 4½c. @ 4¾c. for still-fed; and 3½c. @ 4c. for mast-fed.

**The Weather.**—Since our last notes, Feb. 20, has been changeable, with a good deal of cold and wet, making the season quite backward. There was a fall of one foot of snow on Feb. 22, cold to 24, warm 25, with heavy rain 26 and 27. March 1, rain—2, clear, warm—3, rain and snow—4, 5, cool—6 to 8, snow and rain—9, clear, sleighs out—10, 11, more snow—12 to 17, clear, cool, light rain on night of 17—18 to 20, fine, warm—21, cloudy, heavy rain at night—22, 23, clear, fine—24, cloudy, rain at night—25, hard N.E. rain ending with thunder-shower at night—26, 27, clear, fine—28, N.E. rain-storm—29, 30, clear, cool—31, snow and rain. April 1, clear—2, cloudy, rain at night—3, clear, fine—4, 5, snow and rain—6, clear A.M., cloudy P.M., rain at night—7, rain and snow—8, cloudy—9 to 12, clear, fine, warm, rain night of 12—13, cool, cloudy—14, clear, fine—15, cloudy, rainy night—16, hard N.E. rain day and night—17, 18, cloudy, ground too wet for farm work. Some farmers have planted their potatoes, and sown oats and peas. Market gardeners have set out early cabbages.

**Thermometer at 6 A. M., New-York.**  
(Observations carefully made upon a standard Thermometer (Fahrenheit).—7 indicates rain—s, snow.)

FEBRUARY.											
1	27	7	32	13	32	19	37	25	25		
2	38	8	29	14	17	20	41	26	34		
3	24	9	37	15	39	21	22	27	39		
4	5	10	37	16	32	22	16	28	32		
5	4	11	30	17	27	23	17				
6	46	12	34	18	23	24	15	Ave'r.	28°		
MARCH.											
1	33	8	29	15	22	22	37	29	37		
2	32	9	30	16	22	23	38	30	34		
3	36	10	33	17	23	24	36	31	34		
4	26	11	30	18	25	25	40				
5	14	12	24	19	20	26	41	Ave'r.	29½		
6	31	13	16	20	20	27	36				
7	36	14	20	21	22	28	32				
APRIL.											
1	36	4	30	7	42	10	39	13	43		
2	38	5	35	9	32	11	46	14	39		
3	25	6	36	9	34	12	50	14	41		



**Business Notices.**

*Eighty Cents a Line of space.*

**Another Call to Housekeepers.**

Housekeepers are again requested to send to their Grocer for Pyle's O. K. Soap. The best ever made; Also for Pyle's Saleratus and Baking Cream Tartar. There are no articles of the kind in market so useful and reliable as these. The Editor of this and of nearly all the religious weeklies, use them. All articles bearing our name, are pure and of good weight.

JAMES PYLE, Manufacturer,  
350 Washington-st., cor. of Franklin, N. Y.

**Lands—To All Wanting Farms.**

Large and thriving settlement of Vineland, mild climate, 30 miles south of Philadelphia, by railroad; rich soil; fine crops; twenty acre tracts, at from \$15 to \$20 per acre; payable within four years. Good business openings; good society. Hundreds are settling and making improvements. Apply to CHAS. K. LANDIS, Postmaster, Vineland, Cumberland County, N. J. Letters answered. Papers containing full information sent free.

*Republished with Changes.*

**PREMIUM LIST—1863.**

Good Pay to Voluntary Agents who attend to Collecting and forwarding Clubs of Subscribers to the American Agriculturist.

(Premiums open to all who desire them.)

**N. B.**—The great advance in the cost of some of the Articles offered in our Premium List, renders it necessary to republish the list with the needed changes. For some of the articles we now pay half as much again as we did when the list was first made out for this year. When asked to do so, we adhere to the terms offered in the January number, up to February 1st, after which the terms will be as named below. It will be seen that we have not raised the number of names required proportionally, as much as the increased cost of the articles would really demand. The following terms will hold good until June 1st, when other changes will be announced IF needed.

**All Premiums offered, of every kind, will close with the Month of July.**

**Table of Premiums for 1863.**

Names of Premium Articles.	Price of Premiums.	Names at \$1 each.	Names at 50 cts. each.
1—Good Books—See terms below.....			
2—Best Family Clothes Wringer.....	\$7 50	19	40
3—Nonpareil Washing Machine.....	\$16 00	35	75
4—Sewing Machine, (Wheeler & Wilson).....	\$45 00	90	130
5—Sewing Machine, (Wilcox & Gibbs).....	\$40 00	79	112
6—Aneroid Barometer.....	\$8 50	25	57
7—The Aquarius.....	\$10 00	25	54
8—Five Octave Melodeon (best).....	\$30 00	133	252
9—Four Octave Melodeon (best).....	\$25 00	112	197
10—Four Octave Melodeon (best).....	\$35 00	102	163
11—Worcester's Unabridged Dictionary.....	\$3 50	25	53
12—Six back Volumes Agriculturist.....	\$6 75	19	35
13—Five do do do do.....	\$5 60	16	30
14—Four do do do do.....	\$4 48	13	26
15—Three do do do do.....	\$3 36	10	20
16—Two do do do do.....	\$2 24	7	15
17—One do do do do.....	\$1 12	4	10
18—Jacob's Portfolio Paper File.....	\$1 48	15	14
19—Winsor & Newton's Paints.....	\$3 50	13	29
20—Osborn & Hodgkinson's Paints.....	\$1 50	15	15
21—Premium Cylinder Plow.....	\$10 00	32	70
22—Eagle Plow No. 30.....	\$9 25	30	65
23—Hay and Straw Cutter (best).....	\$9 00	27	63
24—Steel-tooth Cultivator (best).....	\$7 50	25	55
25—Family Lard and Wine Press.....	\$7 00	24	53

**WE WISH IT DISTINCTLY UNDERSTOOD** that these premiums are offered in good faith—no cheap, trashy, imperfect, poorly made, or second-hand thing, will be sent out, but each article offered, is the best of its kind.

Every person collecting names for premiums, should send two copies of each list of names—one of them marked "For Premiums," and also with the name of the sender.

Any person who has commenced sending in names at 80c, and finally fails to get the higher number of names, can fall back upon the smaller number, by remitting the 20 cents extra on each of the smaller number of names required.

Clubs need not be all confined to one Post Office.

**DESCRIPTION OF THE PREMIUMS.****Premium No. 1—Good Books.**

Any person sending 16 or more subscribers, may select from our book list, (page 159), to the amount of 12½ cents for each name, at the club price of 80 cents, or to the amount of 25½ cents for each name at \$1. Farmers' Clubs have frequently joined together and obtained a good library through these premiums. N. B.—The books will be delivered to the recipients, (by mail or express), free of all cost, when under 1,500 miles. For Books going over 1,500 miles,

18 cents on each dollar's worth must be sent to us to pay the extra postage required in advance.

As the prices of books are continually changing, the book premiums will be reckoned by the prices given in the list for the month in which they are called for.

**No. 2—Family Clothes-Wringer.**

This is a first-rate household implement—a great saver of garments, and of hard work. With this machine set on the edge of the wash-tub, the garments are easily and rapidly passed between two India-rubber rollers, the water falling back into the tub, and the garments dropping into a basket, in a drier condition than they can be wrung by hand, and therefore more quickly dried on the line. A child can, in a few minutes, wring out a tubful of clothes. We have had one in constant use in our family for nearly three years, and it is still as good as new. The machine offered, No. 2, is just the thing for family use. It is provided with cogs to move the rollers together, so that it is not possible to tear garments, as is the case with cheaper Wringers not provided with cogs. We present one of these No. 2 Wringers to any person procuring and forwarding 19 subscribers, at \$1 each, or 40 at the lowest club price, (80 cents each.)

**Premium No. 3—Washing Machine.**

The Nonpareil Washing Machine we have had in use in our family for over a year past, and it has not only driven out half-a-dozen placed there on trial, but has really given excellent satisfaction. It is the only machine out of twenty we have tried, which the "help" cheerfully use without compulsion. It is a labor-saver and a clothes-saver—two important considerations. The clothes are put in, in quantity and quickly washed by simply turning a crank. The balance-wheel adjusts the force required, so as to make the turning easy. Take it all in all, it is the best Washing Machine we know of, and is worthy of a place in every family. There are three sizes; we select No. 3, as the best size for common family use. The price of No. 3 is \$16. This machine we will present to any one forwarding 35 subscribers at the regular price (\$1 each); or 75 subscribers at the lowest club price, (80 cents). The machine can be sent to any point as freight, or by express, and will be forwarded, free of all expense, except the freight after leaving the city.

**Premium No. 4—Sewing Machine.**

90 Subscribers at \$1 each, (or 130 at 80 cents each,) will entitle the person sending them to Wheeler & Wilson's best \$45 Sewing Machine, (including Hemmer), new from the factory, and of the very best make. There is no better family machine than this made, as we have proved by nearly five years' use in our own family, in connection with other machines. We want no better. The terms on which it is offered above, will enable many families to secure one without direct outlay of money.

**Premium No. 5—Sewing Machine.**

79 Subscribers at \$1 each, (or 112 at 80 cents each,) will entitle the person procuring them to Wilcox & Gibbs' \$40 Sewing Machine, including a set of Hemmers. This is the best machine of its kind, (sewing with one thread,) and has several points superior to other machines.

**Premiums Nos. 13 to 18—Back Volumes—A First-rate Library.**

These premiums (13 to 18,) will enable any one to secure the previous excellent volumes of the American Agriculturist, as far back as Volume XVI. These will be sent post-paid, in clean, new numbers unbound, but each volume by itself, with index. The whole five can be taken together, or one or more copies of any particular volume be selected, as desired. They will be presented as in the Table above. Let every one be careful to name just which back volumes are desired.

**Premium No. 19—Best File for Agriculturist.**

Jacobs' Portfolio File, made just to fit the Agriculturist—the name gilded on. This is a leather cover or portfolio, so arranged that successive numbers of the paper can be inserted in a minute, and be properly preserved in book form for reading. When one volume is completed, the sheets can be removed and stitched, and a new volume inserted. A single cover will answer for a dozen successive volumes. It is the most complete file yet made. The price now is \$1.25, and the postage 25 cents. We will forward it, post-paid, to any one sending fourteen subscribers, at the lowest club price, (80 cents each.)

**Premiums Nos. 6 to 12 and 23 to 26.**

We have not space to describe these particularly. See American Agriculturist for February, page 60.

**Circulation of the Agriculturist.**

Beyond all doubt or controversy, the circulation of the American Agriculturist to regular subscribers, is many thousands greater than that of any other Agricultural or Horticultural Journal in the World, no matter what its character, or time or place of issue. The publisher is ready at all times to substantiate this statement by comparing books.

**Advertisements.**

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month. TERMS—(Invariably cash before insertion):

FOR THE ENGLISH EDITION ONLY.  
Fifty cents per line of space for each insertion.  
One whole column (145 lines), or more, \$40 per column.

Business Notices, Eighty cents per line of space.  
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Ten cents per line of space for each insertion.  
One whole column (130 lines), or more, \$10 per column.

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**WANTED**—By a young man, obliged to give up a professional life, a situation with some good farmer or nurseryman, the latter preferred, to learn the business. The advertiser has had some experience in both. Good references given and asked. Address, with real name, A. M., Locustville, Accomac Co., Va.

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**EVERGREENS.****PLANT EVERGREEN TREES NOW.**

They are clothed with foliage all winter. The exhalations from their leaves are conducive to health. They will make you a garden all the year. There are 200 varieties to be seen in the ground. Send for a Catalogue to

**PARSONS & CO., Flushing, L. I.**

**Coleus Verschaffeltii.**

The undersigned, having a large stock of the above new, rare, and beautiful bedding plant, offers it at the reduced price of 50 cts. each. The usual liberal discount to the trade. Plants can be obtained at McIlvaine & Young's seed store, No. 9 John-st., or at C. R. Miller's, 634 Broadway.  
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**FISK & HATCH,**  
**BANKERS AND DEALERS IN GOVERNMENT SECURITIES.**  
 No. 38 Wall-st., New-York.  
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**THE UNITED STATES FIVE TWENTY YEAR SIX PER CENT BONDS.**

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The Coupon Bonds are issued in denominations of \$50, \$100, \$500, \$1,000, and are payable to bearer, as are also the Coupons for the collection of the interest. The Registered Bonds are issued in denominations of \$50, \$100, \$500, \$1,000, \$5,000, \$10,000, and are payable to the order of the holder, and registered in his name on the books of the Treasury Department at Washington. The Registered Bonds have no Coupons attached for the collection of interest, but the interest may be collected by the holder in person, or by any person having his Power of Attorney for the purpose, at any Sub-Treasury of the United States which he may designate.

We sell the Bonds for the Government, both Registered and Coupon, in any of the foregoing denominations, at the rate authorized by Congress, without any additional charge for Commission, viz.: at PAR, and accrued interest, or at PAR, with interest commencing from the date of subscription.

**NOTE.**—The Bonds are issued to us by the Government at different periods, and bear interest from the date at which we pay for them, as indicated by a stamp on the first Coupon. For the few days intervening between their issue and the time of sale, we charge the accrued interest, payable in Current Funds. Or, if purchasers prefer it, we take their subscriptions, and ordinarily in two or three days thereafter, deliver them Bonds, bearing interest from the date of their own subscription and payment, with no accrued interest to be paid.

We are thus enabled to save parties all trouble and expense in finding Legal Tender Notes, or otherwise investing in these Bonds.

Orders or inquiries by mail will receive prompt attention, and the Bonds will be sent to any address, by mail or express, as desired. Payment may be made in BANK NOTES CURRENT in New-York, DRAFTS AND CHECKS ON CITY BANKS, OR U. S. LEGAL TENDER NOTES. Persons in the country can send their orders and money to us direct, or call at the nearest Bank and ask the Cashier to do it for them. Drafts or Checks may be sent with safety by mail. Bank Notes or Legal Tenders should be sent by Express.

**ON AND AFTER JULY 1, 1863, THE PRIVILEGE OF CONVERTING LEGAL TENDER NOTES INTO THESE BONDS, AT PAR, WILL CEASE, AND IT WILL BE NECESSARY FOR PERSONS DESIRING TO OBTAIN AT PAR A UNITED STATES BOND BEARING SIX PER CENT INTEREST, IN GOLD, TO SEND IN THEIR ORDERS BEFORE THAT TIME.**

These Bonds are the CHEAPEST GOVERNMENT SECURITY NOW IN THE MARKET, and pay the LARGEST INTEREST on their cost, and Congress has provided that they shall be paid in GOLD, when due.

They are destined to become the BEST KNOWN, MOST POPULAR and MOST AVAILABLE, of all the Bonds of the Government.

The operation of the National Tax Law, which it is now certain will produce double the income originally anticipated, will make the issues of the United States Government the safest and most desirable investment in the world. They are in reality a First Mortgage on everything in the country, as no Railroad or Corporation of any kind, can pay a dividend, or the interest on its own issues, until it has contributed out of its gross income, through the operation of the Tax Law, to the support of the National Credit.

The present bonded debt of the United States is less than THREE HUNDRED MILLIONS, including the seven and three-tenths Treasury Notes; but the Government owes enough more in the shape of Legal Tenders, deposits in the Sub-Treasuries, Certificates of Indebtedness, &c., to increase the debt to about eight or nine hundred millions. Secretary Chase has calculated that the debt may reach one thousand seven-hundred millions if the Rebellion lasts eighteen months longer. It is, however, believed that it will not last six months longer—but even if it does, the National Debt will be small compared with that of Great Britain or France, while our resources are vastly greater.

There is no doubt that the revenue will not only be ample to pay the ordinary expenses of the Government, and all interest on the debt, but leave at least one hundred millions annually toward paying off the debt, and that the Government will be able to get out of debt again, as it has twice before, in a few years after the close of the war.

The duties on imports of all articles from abroad must be paid in GOLD. It is now being paid into the Treasury at the rate of Two Hundred Thousand Dollars each day, which is twice as much as is needed to pay the interest in Gold on all the Bonds of the Government.

The Supreme Court of the United States have just decided that the States have no power to tax the Securities of the Government. This is conclusive upon this point, and will greatly increase the value of these securities.

The money invested in the "FIVE-TWENTY" Bonds through us contributes to the direct and immediate support of the National Treasury. All persons having money to invest will find it to their interest to promptly avail themselves of the opportunity to obtain them at PAR.

**We also deal in all classes of United States Securities, and buy and sell Stocks and Bonds on Commission.**

**We pay special attention to orders from the Country.**  
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"A GOOD THING."—Having occasion the other day to use a liquid Cement, we tried the article made by Hilton Brothers, Providence, and found it to work to a charm. We therefore recommend it."—*Woonsocket Patriot*, Feb. 6, 1863.

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The editor of the *Sunday School Advocate* says in regard to this newly invented instrument:

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Please call and examine them and compare them with those of any of the first class makers, or send for a Circular giving all particulars.

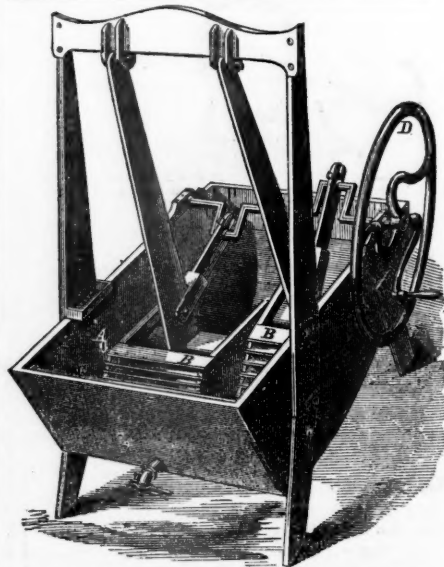
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It is a squeezing machine, and will not injure the finest clothing.

A girl of fourteen years can operate it.

It will not get out of order.

It is recommended by Mr. Judd, the proprietor of this Journal.

Prices: No. 1, \$12. No. 2, \$16. No. 3, \$20.

Send for free Circular to OAKLEY & KEATING, 73 South-st., New-York.

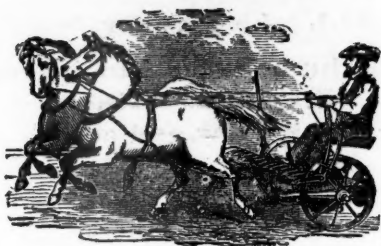
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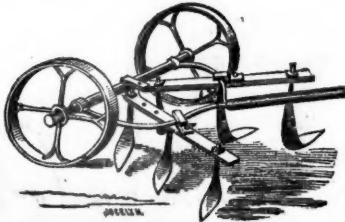
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## Good Grape Vines,

FOR A FEW DAYS LONGER.

The offer of Delaware and Concord Grape Vines made last month, will continue open in May just as long as it will do to send the vines by mail or otherwise. We have kept them back from starting, by covering in a cool place, and if the weather continues as cold and backward as hitherto, the vines can be safely sent up to the 10th, and even to the 15th or 20th of May.—Let all who desire a grape vine or two, or more, of the very best out-door sorts, embrace the present opportunity to get them without expense, by sending one or more subscribers. There are plenty of persons who ought to take and read the *Agriculturist*, and many would do so, if their attention was drawn to it, especially at the beginning of the Summer work. As soon as any person becomes entitled to premium vines, a circular of Directions for Culture, etc., will be forwarded, and the vines will follow in two or three days, (without waiting a week as indicated in the circular).

## Another Offer.

Any premium vines secured during May, but too late to be sent this Spring, will be kept growing in our own grounds during the Summer, and will be forwarded as early in Autumn as it will do to send them, (one for each subscriber received this month at \$1 a year.) The vines will be much larger then, but the postage will be only half as great. Here is a chance, then, to help enlarge our subscription list all through this month, and in return for the trouble, get the premium vines next Autumn. *This offer is only made for the month of May, or June, at the latest.* All premium offers of every kind will close at the middle of the volume, (in July.)

## Strawberry Premiums,

EXTRA.

We are growing several varieties of improved strawberries, and are on the look-out elsewhere, for any new kinds that prove valuable. Last Summer we distributed 40,000 plants of the Triomphe de Gand Strawberry, as premiums, (10 or more for each new subscriber,) sending them to all parts of the country with remarkable success. The postage on plants will be reduced one-half after July 1, and we propose to send out some more good strawberry-plants as premiums to those who will during May and June procure and forward subscribers to the present volume of the *Agriculturist*, at \$1 a year. The Triomphe de Gand will be distributed, in part, if nothing better or more desirable is found. In July, or after seeing the fruit and observing the plants this season, we will announce what kinds will be distributed. Those desiring the strawberry premiums will please name the fact when sending in subscribers, that their names may be put down for that purpose, and they may feel assured that they will be liberally dealt with—at least as well as in the strawberry distribution last year.

**An Exhibition of Pumpkins, Squashes, Gourds, etc.,** will be held at the *American Agriculturist* Rooms, next Autumn, of a similar character to the one last year, but probably on a still larger scale. The list of prizes, and other particulars, will be given hereafter. We merely mention the matter now, that cultivators may be preparing for it in season. Who will raise the largest Pumpkin or Squash, the greatest yield on a vine, the best varieties for eating, the finest collection of Ornamental Gourds, etc.? Don't let Connecticut get more than one first premium.

**Books Not Advanced.**—By reference to the list on page 159, it will be seen that the prices remain the same for May as for April, with two or three exceptions. Several are struck out because no longer issued, and some additions are made. This list is good only for the month in which it appears, as during the scarcity of paper, publishers are continually advancing prices, and suspending publication of many books.

## The Special Premiums.

## EXPLANATION.

Our readers will notice that we are offering Special Premiums at this season. The fact is, we are making every possible effort to increase the subscription list to the highest possible point, in order to fully meet the greatly increased cost of printing paper, and of other publishing expenses, without raising the subscription price. Our general expenses, aside from printing paper and press work, are not now increased by additions to our list, hence there is an advantage derived from every new name now received, even after paying the special premiums. We think the paper is better than ever before, and in view of the fact that the price remains the same, we shall be greatly obliged to all our friends who at the present time aid in rolling up the list. Can we not have a hundred thousand subscribers this year? A single addition from one half of our present subscribers would more than secure this desirable result. At this season, many will feel the need of all the hints they can get, and they will perhaps be the more ready to take and read the *Agriculturist*. The premiums offered, will, we hope, be considered as a partial remuneration, at least, for the trouble taken by our friends in soliciting subscriptions from others. As a rule, we do not expect hereafter to give any premiums not offered at the beginning of the year. All premiums offers of every kind close in July.

**Read the Advertisements.**—We are sometimes asked where to procure articles, which are already advertised in our columns. As the advertisements often announce novelties before they are noticed editorially, they are generally profitable to look over. Our advertising pages have been pretty thoroughly weeded by the standing rules. We repeat the suggestions, to study over the business notices, and send for the catalogues and circulars offered, and thus learn what is for sale, on what terms, and by whom; also please let the advertisers know where their business cards are seen by the largest number of wide awake readers. They like this plan.

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All business and other communications should be addressed to the Editor and Proprietor,

ORANGE JUDD, 41 Park-Row, New York City.